Chapter 4
Maintenance Operations

Section I
Materiel Repair and Evacuation

4–1. General

a. Proper performance of PMCS by the equipment operator will ensure early detection of faults and maintenance requirements.

b. MACs specify what tasks can be performed at each level of maintenance.

c. To ensure the most cost–effective use of maintenance resources, the economic reparability of unserviceable materiel will be determined per paragraph 4–5 prior to initiating any action to repair the materiel.

d. The decision to repair or evacuate is based on the maintenance repair and recoverability codes, urgency of need, and a mission, enemy, time, terrain, troops–available (METT–T) analysis.

e. Uneconomically reparable materiel will not be evacuated beyond the level authorized to dispose of or reutilize the materiel.

f. All actions relative to the inspection, classification, verification, and disposition of uneconomically reparable equipment will be accomplished in an accurate and timely manner.

g. Materiel will be disposed of per AR 710–2.

h. No one individual will perform duties as both a materiel repairer and shop stock clerk at the same time.

4–2. Unserviceable materiel

a. Unserviceable end items that cannot be repaired promptly will be evacuated to the supporting maintenance activity. Unserviceable reparables will be evacuated through the appropriate supply support activity.

b. DS and GS maintenance units will provide backup evacuation support to supported units.

c. Materiel will be protected (packaged/crated) to prevent further damage during evacuation. This includes all BII and components.

d. DS and GS maintenance units will not hold unserviceable materiel that they do not intend to repair.

4–3. Technical inspections (TIs)

a. A TI will be performed prior to repair or evacuation of unserviceable end items or components. TIs are to be made by a technically qualified individual. Inspections will be performed according to equipment maintenance and serviceability standards applicable to the maintenance level performing the repair. The results of the TIs are used to—

(1) Verify serviceability.

(2) Determine the economic reparability of the item.

(3) Determine the extent of maintenance effort and repair parts required to restore the item to the prescribed serviceable condition.

(4) Determine if unserviceable items were rendered unserviceable due to other than fair wear and tear.

(5) Determine estimated cost of damages (ECOD).

b. The TI which accompanies a request for disposition to the NICP will be verified by a senior inspector, maintenance technician, or maintenance/motor officer as specified by the MACOM.

c. When the TI supports an investigation of pecuniary liability and actual costs cannot be determined, inspectors will prepare an ECOD. Basic policy guidance for an ECOD in support of a report of survey is in AR 735–5.

d. DA Form 2404 or other approved forms will be used to record results of technical inspections.

4–4. Verification inspections

Verification inspections of major end items ensure the accuracy of a TI when it results in unserviceable, uneconomically reparable condition codes (CCs) of H or P.

a. MACOM commanders without subordinate installations and installation commanders will—

(1) Ensure that technical inspections resulting in unserviceable, uneconomically reparable CCs of H or P, are verified using independent inspections prior to requesting disposition instructions per AR 710–2. Verification inspection will not be performed by the individual performing the initial condition code classification.

(2) Ensure that inspectors conducting verification inspections are technically qualified in the equipment commodity they are inspecting.

b. The recording of a verification inspection will be done by typing or stamping a statement on the original inspection form. The required data elements are—

(1) Organization of the verifying inspector.

(2) Inspector's name and grade.

(3) Date of inspection.

(4) Signature of inspector.

c. Major end items with CC H or P that fail a verification inspection will be referred to the maintenance officer with the corrected classification. The maintenance officer will determine further action required to repair the item.

4–5. Maintenance expenditure limit (MEL)

a. MEL is the total allowable one–time cost to restore an end item, major component, or reparable component to a fully serviceable condition as prescribed in the appropriate TM. Current MELs are listed in the TB 43–0002–series.

(1) MEL is used to ensure economic and operational effectiveness of Army maintenance at all levels. Depot level assistance may be obtained through the LAO.

(2) Required repairs will not be broken into separate job estimates to bypass prescribed MELs.

b. MEL for repair of end items (for example, trucks and generators) and major components (for example, receivers and machine–guns) at DS and GS levels of maintenance is expressed as a percentage of the current unit replacement price.

(1) The MEL is reviewed at least annually and updated as required. Interim changes are incorporated into the base document within 1 year.

(2) Planning prices in SB 710–1–1 will be the source of replacement costs for end items.

(3) The Army Master Data File (AMDF) prices will be used as the source of replacement costs for reparables. Local/geographical costs will be used for overhead and labor costs.

(4) Commercial equipment purchased by a MACOM will have a MEL established and published by that MACOM.

c. MACOM commanders have one–time approval authority on requests for waiver of published MEL when the required maintenance can be accomplished at DS and GS levels of maintenance, or by local contract. In approving such requests, commanders will ensure that—

(1) A replacement item is not available by the RDD.

(2) Resources are available or can be made available to the requesting organization to do the repairs prior to the required delivery date.

(3) Requesting organizations submit a repair cost estimate and justification for retention.

d. Installation commanders within AMC are authorized to approve repairs that exceed MEL for commercial equipment and do not require materiel proponent approval. Installation commanders will contact the U.S. AMC Installations and Services Activity, Rock Island, IL to ensure that excess equipment is not available or that new procurement would not prove to be more cost–effective. HQ, AMC maintains a listing of specific pieces of equipment included under this waiver.

e. When a replacement item is not available the materiel proponent may grant an exemption from MEL.

f. Repair cost estimates at the DS and GS levels of maintenance are based on the cost to return materiel to serviceable condition.

g. The cost estimate is based on all costs except those specifically excluded herein.

h. To determine repair eligibility, compare the cost estimate with

the MEL percentage multiplied by the replacement cost as listed in SB 710–1–1.

i. The following direct costs will be used to determine repair cost estimates when faults are found during technical inspections:

(1) *Direct labor.* Direct labor is that labor (civilian or military) that can be specifically identified to the repair to be performed. Direct labor involves only personnel in direct productive contact with the item or service involved. This does not include initial inspection. To estimate direct labor costs, determine/estimate the direct labor man–hours required and multiply by the appropriate hourly labor rate. (See *(a)* through *(d)* below.)

(a) Direct labor man–hours. The determination of the direct labor man–hours to be applied will be based on working hour requirements for maintenance tasks listed in applicable equipment publications; commercial flat rate manuals, when appropriate; similar work performed previously; or individual experience. The direct labor man–hours will be periodically reviewed and updated, if necessary.

(b) Civilian labor rates. The cost of civilian labor will be based on a labor rate for the work center that will perform the work. Labor rates, whether determined from annual salaries or hourly wage rates, will be provided by the servicing finance and accounting office.

(c) Military labor rates. Labor rates for military personnel will be the average military wage rate for the work center performing the work. These rates will be provided by the servicing Finance and Accounting Office.

(d) Established labor rates. Major Army commanders and directors of agencies may establish and use standard hourly rates for direct and indirect (or overhead) labor, so long as such rates are consistent with AR 37–1. When such standard rates are established, separate rates are established for each category of supportable materiel, commodity group of equipment, and weapon system. A separate standard labor rate will be established for each major geographical area where wage levels vary significantly.

(2) *Materiel.* The cost to repair includes all materiel, including PA–funded materiel, directly applied to the particular equipment undergoing repair. (See *(a)* through *(c)* below.)

(a) Consumable items received from the supply system may be costed as billed by the supply agency. If no billing is available, consumables are costed at the standard inventory price as published in appropriate supply manuals or AMDF. Items procured from local sources are priced at the latest invoice cost. Cost of items fabricated will be based on actual cost, where possible. When actual cost is not available, engineering estimates, including indirect expenses, will be used.

(b) Government–furnished materiels expended by a contractor in performing all or part of the repair will be costed at the standard inventory price.

(c) Replacement components and assemblies used in the repair process will be costed at the standard inventory price. Credit is taken for the return of the reparable component in an amount equal to the current standard inventory price, less the estimated cost to repair the component.

(3) *Freight and packaging.*

(a) Freight will not be included as an element of cost when the equipment to be repaired is located in CONUS. When the equipment to be repaired is located overseas and no local capability to repair exists, the cost of freight to CONUS will be included as an element of cost. The cost of freight will include all transportation and handling cost from point of use to designated CONUS point of repair.

(b) When equipment cannot be repaired onsite, and costs are incurred to prepare the equipment for shipment, such cost (including materials) will be included in the estimate of cost to repair regardless of origin or destination.

j. Indirect costs to be included will be determined by applying the indirect or overhead rate, computed using AR 37–1, to the estimated direct labor man–hours. The indirect expense rate will include the following:

(1) Manufacture or production expenses. These expenses are costs incurred within or identifiable to the maintenance shop or organization performing the repair work, although not identifiable to particular jobs.

(2) General and administrative expenses. These expenses are costs incurred in the general management or supervision of the installation as a whole that are allocated among maintenance and other activities.

k. Miscellaneous costs of repair will include all contractual services acquired incidental to, and identifiable with, the performance of all or a portion of the specific repair. All other costs required to accomplish the repair that are directly identifiable with the equipment will be included except those directly named in *m* below.

l. Items of operating expense will include all scheduled and unscheduled services and repairs that are accomplished by the using organization, including repair parts. These costs will be included when the item being repaired is excess to unit needs, was damaged accidently, or is repaired by higher level maintenance on a non–return basis. See exception in *m* below.

m. The following costs will not be included in the estimate of cost to repair:

(1) Replacement of basic issue list items.

(2) The labor cost of applying modification work orders.

(3) The cost to overhaul or replace accessory items used to adapt equipment for special uses. This would include such items as rank insignia, winterization kits, flashing lights, two–way radios, tool kits, and similar items. Individual estimates to overhaul such items will be made as appropriate and required.

(4) Items of operating expense, when the item being repaired is not excess to unit needs, has not been accidently damaged, or is repaired by higher level maintenance on a return–to–user basis.

4–6. Equipment transfer and turn–in

a. Equipment that is transferred between MACOMs, transferred into war reserves or prepositioning of materiel configured to units sets (POMCUS), prepared for storage below wholesale level, and other specified stocks will meet the following requirements:

(1) The maintenance standard as defined in paragraph 3–1 *a* .

(2) Scheduled services will be performed if 90 percent of service interval (using criteria outlined in applicable schedule) has expired as of the transfer date reflected in disposition instructions from the wholesale manager. The criteria for services of time is suspended during shipment and will resume upon acceptance at gaining site.

(3) Equipment to be transferred should be inspected by the losing command a minimum of 120 days prior to the transfer date, allowing parts to be requisitioned and received, so that corrective actions can be completed prior to the acceptance inspection. Equipment being transferred should be inspected for acceptance by the receiving command, or appropriate agency, a minimum of 60 days prior to transfer date. This inspection serves as the final acceptance inspection and establishes corrective action required by the losing MACOM unit before transfer. It also serves as a baseline for the verification of equipment condition at the receiving location. MACOMs and agencies are responsible for funding TDY related to their responsibilities for inspections as outlined.

(4) The results of TM 10– and 20–series PMCS and PMIS acceptance inspections (record copy of DA Form 2404) and other records required by DA Pam 738–750 and DA Pam 738–751 will accompany the equipment.

(5) Gun tubes have a minimum of 75 rounds of effective full charge remaining when transferred between MACOMs, into war reserve, POMCUS, or other specified stocks.

(6) Equipment accepted for depot overhaul via the Combat Vehicle Evaluation (CVE) Program will not be transferred between MACOMs.

b. Equipment transfer between MACOMs in unit sets (force package fielding) will meet the following requirements in addition to those in *a* above:

(1) Requisitions for repair parts with estimated delivery dates past the transfer date will be canceled. Appropriate funds (price from current AMDF) will be transferred to AMC as specified in the MOA.

(2) Outstanding DS (or higher) maintenance requests that cannot be completed prior to transfer will—

(a) Require the gaining and losing MACOMs to negotiate an acceptable solution such as delayed transfer dates for specific pieces of equipment. Agreement requires concurrence of DA DCSOPS.

(b) Be canceled. Appropriate funds (current AMDF price) will be transferred to AMC as outlined in transfer MOA.

(3) MACOMs/agencies are responsible for funding TDY related to their responsibilities for transfers as outlined above.

c. AMC responsibilities for unit set transfers between MACOMs are to—

(1) Serve as arbitrator for inspections outlined in *a* (3) above.

(2) Receive funds transferred from losing MACOMs as outlined in subparagraph *b* above.

(3) Perform corrective actions at the receiving/handoff site to ensure equipment is in the same condition as reflected by record copy of acceptance inspection required in *a* (3) and (4) above.

(4) Provide total package fielding support to gaining MACOM.

d. Equipment transferred between MACOMs in other than unit sets will meet the requirements in *a* above. In addition, equipment will not be transferred until all corrective actions requiring parts are completed and DS and higher maintenance requests are completed.

e. MACOM commanders will establish the standard for materiel transferred between units in the MACOM. Use of TM 10– and 20–series PMCS maintenance standard is encouraged. MACOM commanders will provide necessary maintenance resources and assign responsibility for repair of materiel in the MACOM.

f. Equipment turn–in is accomplished as follows:

(1) Equipment turned in for depot overhaul is not required to meet the transfer standards outlined above. Equipment will be turned in "as is" complete (including BII and COEI), unless an exception is made by AMC.

(2) Materiel at unit level that is excess as a result of changes in authorization documents or displaced equipment will be turned in using the standard outlined in *a* above, unless an exception is made by AMC. AMC may provide an exception for equipment accepted for depot overhaul or rebuild, equipment being disposed of, or other equipment if an appropriate reason exists. Other excess materiel (that is, found on post) may be turned in to the supporting supply activity in "as is" condition.

(3) Materiel above the unit level (that is, supply support activity or theater war reserve) reported excess will—

(a) Not be scheduled for repair or maintenance services unless directed by the national inventory control point.

(b) Be maintained in its present condition by the owning organization.

(c) Not be cannibalized or involved in parts substitution without prior authorization from the national inventory control point (NICP).

g. Exceptions are as shown below:

(1) Aviation equipment transferred between property accounts will conform to the serviceability criteria contained in TM 1–1500–328–23.

(2) Equipment used as training aids and is assembled and disassembled is assigned a condition code of "F" or less. Depot overhaul is required to transfer or reissue this equipment. Equipment used for base operations or for the original purpose operator/crew training will meet the transfer/turn–in standard.

4–7. Controlled exchange

Controlled exchange is the removal of serviceable components from unserviceable economically reparable end items for immediate reuse in restoring a like item or weapon system to an FMC condition. The unserviceable component must be used to replace the serviceable component or retained with the end item that provided the serviceable component.

a. Controlled exchange is authorized only when—

(1) Required components are not available from the supply system before the RDD.

(2) A valid requisition is submitted to replace the unserviceable item.

(3) The maintenance effort required to restore all of the unserviceable reparable materiel involved to a mission capable condition is within the MAC authorization and capability of the unit performing the controlled exchange.

(4) The end item or weapon system from which the serviceable component is removed is classified not mission capable supply (NMCS).

(5) An aircraft from which a serviceable component is removed must be classified NMCS, not mission capable maintenance (NMCM), or partially mission capable (PMC).

(6) Aircraft maintenance manual instructions require that a known serviceable component be temporarily used while troubleshooting. Such components may be temporarily exchanged from a fully or partially mission capable aircraft.

(7) The end item or weapon system will not be degraded to an uneconomically reparable condition.

(8) The end item or weapon system from which the serviceable component was removed is protected from further degradation.

(9) The unserviceable component is tagged and installed on, or retained with, the end item or weapon system from which the serviceable like item was removed. In addition, the removal of the component must be recorded on the DA Form 2407 or DA Form 2404 for the end item or weapon system. This is to retain the identity and integrity of the reparable end item or weapon system.

(10) The organization performing the controlled exchange takes prompt action to restore the unserviceable materiel to an FMC condition.

b. When the controlled exchange satisfies a requirement already in the Army supply system, that requisition will be either canceled or used to restore the unserviceable end item or weapon system to FMC.

c. Controlled exchange by using units is authorized only when—

(1) All of the unserviceable reparable materiel involved is owned or under control of the organization performing the controlled exchange.

(2) It is the only means reasonably available to eliminate an adverse effect on the operational readiness of the unit, organization, or activity performing the controlled exchange.

(3) Approved by the commander of the organization performing the controlled exchange.

d. Controlled exchange by DS and GS levels of maintenance will be authorized only when—

(1) It is the only means of providing an FMC end item or weapon system to a supported unit within the timeframe indicated by the issue priority designator on the maintenance request.

(2) Approved by the DS/GS commander, IMMO, or his designated representative.

e. During mobilization or combat, MACOM commanders may modify the controlled exchange conditions as deemed necessary.

f. Controlled exchange is not authorized when the materiel involved in an accident has not been formally released by the investigating officer.

g. Controlled exchange is not authorized on ORF assets.

4–8. Cannibalization of materiel

a. Cannibalization is the authorized removal of components from materiel designated for disposal. Cannibalization supplements supply operations by providing assets not immediately available through the Army supply system. Costs to cannibalize, urgency of need, and degradation to resale value of the end item should be considered in the determination to cannibalize.

b. Materiel awaiting disposition instructions will not be cannibalized without prior approval of the NICP.

c. Policies and procedures for establishment and operation of cannibalization points are contained in AR 710–2 and DA Pam 710–2–2.

d. During combat, commanders may authorize the cannibalization of disabled equipment only to facilitate repair of other equipment for return to combat. No parts will be cannibalized for stockage at the battalion level.

e. Cannibalization is not authorized on ORF assets.

4–9. Modification work orders (MWOs)

a. Modifications to Army materiel are either mandatory (urgent, limited urgent, or normal) or nonmandatory (minor alterations, special purpose, or special mission modification).

b. Mandatory modifications are authorized for application by DA Modification Work Order (DAMWO). Some MWOs are implemented by MWO fielding plans (MWOFPs). The proponent for the MWO is responsible for applying the MWO. The MWO Application Completion System is maintained at the USAMC Systems Integration and Management Activity (SIMA)–West and can provide information on MWOs.

c. Equipment awaiting application of an urgent MWO will be deadlined.

d. Limited urgent modifications will be applied within the timeframe specified in the MWO. If the modification is not applied within the specified time, the equipment will be deadlined.

e. Normal modifications are applied before the completion date stated in the MWO or MWOFP.

f. Commanders may authorize special modifications of materiel. Materiel must be able to be returned to its original state within 24 hours. Special modifications to aircraft and COMSEC equipment require prior approval from ATCOM and NSA, respectively.

Section II
Operations Management

4–10. Materiel records and reports

Materiel records and reports for maintenance management and performance of maintenance is prepared and maintained as prescribed in DA Pam 738–750, DA Pam 738–751, and AR 700–138.

4–11. Measurement of maintenance performance

a. The management of maintenance operations throughout the Army will be based upon a performance management approach that supports the Army management philosophy described in AR 5–1. This approach will enable the maintenance organization to develop a unified effort around goals and objectives.

b. The planning and controlling functions of management will be emphasized to ensure that—

(1) Objectives are established to support mission goals.

(2) Performance is measured against quantifiable standards that reflect the objectives.

(3) Corrective actions taken are based on improving the factors that are constraining performance.

c. Maintenance performance measures are the key element of the control function of maintenance operations management. Through use of performance measures, commanders and managers will ensure that their maintenance operation is providing the best possible support to sustain combat readiness.

4–12. Unit level management

Commanders and managers will operate their unit level maintenance program per the procedures contained in FM 43–5 and DA Pam 750–35.

4–13. Utilization standards

a. MACOMs will ensure the establishment of a manhour accounting program where automated capability exists. Manhour accounting is optional where automation is not available and manual procedures must be used.

b. Unit commanders are responsible for the utilization of assigned military and civilian personnel. The maintenance supervisor is directly responsible for utilization of available maintenance personnel. Appendix C provides an explanation of and instructions for calculation of manhour utilization rates. The following are DA directed standards and goals for manhour utilization rates:

(1) The standard for utilization of assigned civilian personnel is 85 percent.

(2) The standard for utilization of available military personnel is 85 percent.

(3) The goal for utilization of assigned military personnel is 50 percent.

4–14. Maintenance management systems

a. The primary functions of maintenance management include forecasting, distribution, scheduling, and production control of maintenance workloads. Maintenance management is accomplished through DA standard, MACOM standard, and corps, division, or installation unique systems.

b. The Army Maintenance Management System (TAMMS) and the Army Maintenance Management System–Aviation (TAMMS–A), as described in DA Pam 738–750 and DA Pam 738–751, prescribe manual procedures for preparation and management of forms and records required to manage maintenance, control use, and report warranty actions and faults on Army equipment. Automated systems report serial numbers of selected components for maintenance actions performed. Procedures and a list of selected components are contained in DA Pam 738–750. Automated system procedures are contained in the applicable system's user manual.

c. TAMMS data base will be maintained by the USAMC LOGSA per DA Pam 738–750.

d. TAMMS–A data base will be maintained by U.S. Army Aviation and Troop Command (ATCOM).

e. Automated systems implementing TAMMS take precedence over manual systems.

f. DA standard systems, when implemented, take precedence over MACOM and installation systems.

g. The Unit Level Logistics System (ULLS) is the DA standard system to automate TAMMS at unit level.

h. The Standard Army Maintenance System (SAMS) is the DA standard automated system having priority over the maintenance reporting and management (MRM) system and maintenance activity management system (MAMS). SAMS produced information from the work order transfer process is submitted weekly to the Commander, USAMC Logistics Support Activity, ATTN: AMXLS–RB, Redstone Arsenal, AL 35898–7466.

i. The support maintenance management system (SMMS) and maintenance information management system (MIMS) are the authorized MACOM installation standard systems until replaced by installation level SAMS.

j. The maintenance module of the DA standard multicommand system for the Army Medical Department Property Accounting System (AMEDDPAS) ADSM–18–HL3–RPB–IMB–UM is the automated maintenance management system for TDA medical maintenance activities. MTOE MED maintenance units use TB 38–750–2.

k. The mobile, production, and service equipment maintenance modules of the interactive AMC Standard Installation Equipment Management System (IMES) are the authorized automated system capabilities for all AMC units/activities per ADSM 18–L80–KAL–ZZZ–UM.

l. Standard Army Management Information System (STAMIS) Computer Exchange (SCX) is composed of commercial–off–the–shelf (COTS) computer systems including their associated peripheral equipment used to operate or support tactical STAMIS applications. SCX stockage will be located at DS SSAs and designated depots/FRAs in a quantity initially determined by the Program Executive Office (PEO STAMIS). It will provide direct exchange support for the extended depot repair process described in paragraph 5–52c.

4–15. Work order logistics file (WOLF)

The WOLF is the Army central file for selected data from DA Form 2407 and DA Form 5504 (Maintenance Request) generated at DS and GS levels and transmitted through SAMS and MIMS. The WOLF—

a. Provides maintenance data to materiel developers and commanders at all levels for maintenance engineering and maintenance performance.

b. Is maintained by LOGSA.

Section III
Technical Assistance and Supply Interface

4–16. Technical assistance
Effective maintenance support of materiel combines the maintenance program conducted by the using activity and its supporting maintenance activity. Supporting maintenance activities must maintain a proactive liaison to assist using activities in accomplishing their materiel maintenance responsibilities.

4–17. Logistics Assistance Program (LAP)
The LAP is administered by AMC. The LAP provides technical and logistical assistance to unit and DS and GS levels of maintenance. The installation point of contact for LAP is the Logistics Assistance Office.

4–18. MAIT Program responsibilities
a. The MAIT program is designed to—

(1) Upgrade Army materiel and units to a state of readiness consistent with assigned goals needed to carry out the Army mission.

(2) Develop unit capabilities to meet mobilization and contingency operations.

(3) Ensure that commanders at all levels are provided assistance in identifying and resolving maintenance, supply, and maintenance management problems within their units.

(4) Provide effective and responsive assistance and instruction (A and I) to units and activities.

(5) Augment the commander's capability for providing maintenance and associated logistic A and I to organic, attached, and supported units.

(6) Identify systemic problems in maintenance management and provide assistance to improve management of maintenance workload at unit, DS and GS levels.

(7) Generate an atmosphere of mutual trust between the MAIT and the supported unit. This allows unit personnel to participate actively in problem identification and resolution without fear that any derogatory information will be used as a basis for adverse command action.

b. The DCSLOG will—

(1) Develop the MAIT Program.

(2) Approve or disapprove requests for program changes or deviation.

c. Major Army commanders, except the CGs, Army Materiel Command, U.S. Army Criminal Investigation Command, and the Commander, Military Traffic Management Command (MTMC) will—

(1) Establish a MAIT program to support Active Army units.

(2) Establish a MAIT program at the Readiness Group (RG) or comparable level to support Army Reserve units. Installations, RGs, or Major U.S. Army Reserve Commands that do not have a resident MAIT will request A and I support from the closest MAIT.

(3) Ensure that MAIT teams are technically self–sufficient for the routine support mission.

(4) Provide for the temporary augmentation of MAIT to fill short–term or infrequent requirements for equipment and management skills not available from local resources.

(5) Ensure that sufficient funds and personnel are budgeted and allocated for MAIT operations.

(6) Coordinate technical assistance programs to provide maximum benefit to supported units with minimum resources.

(7) Ensure that any acronym that could be misconstrued as being MAIT is not used.

(8) Review MAIT operations annually to ensure maximum program effectiveness.

(9) Submit recommendations for MAIT Program improvement or deviation to HQDA (DALO–SMM), WASH DC 20310–0546.

(10) Upon request, provide backup MAIT support to units of the ARNG. Such support should be reciprocal and is normally reimbursable.

(11) Schedule periodic conferences between MACOM and CONUS/installation MAIT coordinators to highlight and resolve conflicts in policy and procedures.

d. CNGB will ensure that MAIT program services are furnished to units of the ARNG.

e. CONUS and OCONUS installations, corps, divisions, and ARNG and MUSARC commanders will—

(1) Have operational control of assigned MAITs.

(2) Ensure that MAIT members are technically competent and possess the ability to provide quality A and I.

(3) Ensure that assigned MAIT personnel receive training to maintain technical competence and remain current with changing logistics policies and procedures and instructional techniques. The MAIT will receive its share of new equipment training (NET).

(4) Request assistance from supporting activities and/or higher headquarters to correct problems that cannot be corrected within the command.

(5) Request, through channels, modifications to TOE/MTOE or TDA for personnel and equipment in support of the MAIT Program.

(6) Provide resources needed to carry out the MAIT Program.

(7) Periodically evaluate MAIT performance and effectiveness.

(8) Provide for periodic conferences between MAITs and evaluation and inspection teams to highlight and resolve possible conflicts in interpretation of logistic policy and procedures.

f. Commanders of units visited will—

(1) Ensure that appropriate personnel, materials, and records are available for the MAIT during scheduled A and I visits.

(2) Take prompt action to correct problems.

(3) Request assistance from supporting activities and/or higher headquarters to correct problems that cannot be corrected by the unit.

(4) Retain the latest two MAIT visit summaries.

4–19. MAIT Program policy
a. The MAIT Program will be operated as a decentralized program.

(1) Teams will be established at installations, RG, or comparable levels in CONUS; and at corps, division, separate brigade, or comparable levels in overseas areas.

(2) The teams will be clearly identified in mission and function statements or operating regulations.

(3) A MAIT will not be established when troop or equipment density does not warrant it. In such cases, the responsibility for providing A and I is assigned to an established team within the geographic location according to AR 5–9.

b. Personnel assigned to a MAIT will not participate in command inspections, annual general inspections, annual training evaluations, spot checks, roadside inspections, Command Logistics Review Teams (CLRT), or any other command evaluation program.

c. When resources permit, each Active Army and Reserve Component unit will be visited annually. Visits to Reserve Component units will take place during scheduled drills and assemblies or during annual training periods.

d. MAIT visits will not be scheduled during any inspection.

e. Commanders of units visited are provided a summary report of the visit.

f. MAIT visit results and summaries will not be given ratings or scores, nor will the information be revealed to any inspection agency. When the MAIT function is contracted, MAIT visit results will be available to quality assurance evaluators.

g. MAITs provide semiannual overview briefings or published status reviews to brigade, division, corps, installation, and senior level Reserve Component commanders. Briefings should highlight significant problems encountered that apply command–wide, but will not identify specific units involved. Special emphasis is placed on providing the commander an overall assessment of conduct and supervision of PMCS within the command.

4–20. MAIT procedures

a. The MAIT consists of the minimum number of specialists required to meet the needs of the visited unit.

b. MAIT visits will be directed for specific units not meeting acceptable readiness standards or levels. Direct communication will be established between the units in need of assistance and the supporting MAIT.

c. Participation by DS soldiers in MAIT visits is encouraged.

d. Coordination between the unit and Active Component MAITs will take place at least 7 working days prior to a directed or programmed visit. RG and ARNG MAITs will coordinate visits at least 30 calendar days prior to a directed or programmed visit. Matters to be discussed are as follows:

(1) The date the visit will take place.

(2) Known areas requiring A and I and the number of people who will receive instruction.

(3) Location and facilities where A and I will be performed.

(4) Quarters and messing facilities if required.

(5) Special clothing, tools, equipment, and training aids required.

(6) Security clearances needed for team members and clearances to enter restricted areas.

(7) Entrance and exit interviews or critiques.

e. MAITs, as a minimum, will have the capability to assist and instruct units in improving operations and management in the following areas:

(1) Operator requirements.

(2) Preventive maintenance and equipment repair.

(3) Equipment condition and serviceability.

(4) Materiel condition status reporting.

(5) Administrative storage.

(6) Maintenance records and reports management.

(7) Calibration management.

(8) Proper use of tools and test equipment, troubleshooting, and fault diagnosis.

(9) Maintenance personnel management and training.

(10) Proper use of publications, and distribution procedures.

(11) Shop layout.

(12) Planning, production, and quality control procedures.

(13) Safety.

(14) Shop operations, including SOPs.

(15) Facilities.

(16) Proper implementation of the AOAP.

(17) PLL procedures and PLL accountability.

(18) Equipment recovery and evacuation.

(19) Proper implementation of the Army Warranty Program.

(20) Army modernization training.

f. The MAIT will consist of a team chief and sufficient personnel to provide effective A and I to supported units. Team size depends on the following:

(1) Number and type of supported units and their geographic dispersion.

(2) Density and type of equipment supported.

(3) Commodities and areas that A and I addresses.

(4) Frequency and time allotted for visits.

g. Military and civilian personnel selected for assignment to MAITs will meet the following criteria:

(1) Possess technical skills, knowledge, and ability in their particular commodity or specialty areas.

(2) Have a broad general knowledge in a related secondary logistics field.

(3) Be qualifiable in instructional techniques and procedures.

h. MAIT personnel authorizations should provide sufficient spaces to maintain program continuity during periods of personnel turbulence.

i. Visits to units with specialized equipment (for example, aviation, medical, signal, missile) may require temporary addition of qualified personnel.

j. The MAIT personnel will be cleared for access to defense information according to AR 604–5. Clearance will be equal to the classification of the equipment and documents to be reviewed during the visits.

k. Responses to a request for A and I will be made by—

(1) Telephone or electrical means.

(2) Visit of selected personnel.

(3) Visit of entire team.

l. MAIT visits are categorized as follows:

(1) Requested visits can be arranged by the unit commander requiring a MAIT or by commanders requesting a MAIT for subordinate units.

(2) Directed visits are scheduled in advance.

(3) Programmed visits are scheduled in advance.

m. Requested and directed visits will be given precedence over programmed visits.

n. To ensure effectiveness of the program, the MAIT chief will provide the commander of the unit to be visited with the guidance shown below. It should be stressed that a minimum of unit preparation is desired.

(1) Key personnel are to be made available, including crews and operators who will receive A and I.

(2) Materiel records and reports to support A and I are to be made available, but not formally displayed.

(3) Unit personnel are to be made available as guides to accompany MAIT members to the A and I site.

(4) Tools, equipment, and supplies needed for A and I are to be made available.

(5) Equipment required for training during MAIT visits will be configured as needed. Formal layouts and displays are discouraged.

o. Procedures for the conduct of MAIT visits depend on the type of A and I to be provided. In providing responsive A and I to the unit in need, the MAIT will provide the following:

(1) A and I on materiel, records, procedures, and reports as requested or identified by the units or by higher headquarters.

(2) A and I, as determined by MAIT, through review of materiel, records, procedures, and reports.

p. The amount of materiel, records, and reports reviewed will be governed by the following:

(1) Unit commander's recommendation.

(2) Availability of materiel, records, and reports.

(3) Available time for both the MAIT and the unit visited.

q. Operators and unit maintenance personnel will evaluate selected materiel according to applicable technical publications. The records of results of individual evaluations will be prepared by unit personnel. A and I team members will supervise the materiel evaluations and provide assistance or instruction as needed.

r. Upon conclusion of the visit, the MAIT chief will—

(1) Conduct an informal review of the visit. Persons present for the review will include the commander of the unit visited and others selected by the commander. The critique should cover the total scope of the visit and include problem areas, remedial action initiated or recommended, and areas requiring followup.

(2) Prepare a visit summary.

(3) Discusse areas requiring external assistance with the unit commander. After this discussion, a separate letter will be prepared to describe problems that require outside assistance. The MAIT chief will submit this letter to the organization, headquarters, activity, or agency capable of taking action. The chief will also furnishe a copy of the letter to the commander of the unit visited.

(4) Give a MAIT evaluation questionnaire to the unit commander.

s. The unit commander will assesses the performance of individual team members and the quality of A and I provided. This will be done by completing the questionnaire provided by the MAIT chief.

t. The success of the MAIT Program depends largely on the quality of the A and I provided. To enhance the program it is essential that the MAIT capabilities be widely publicized. Suggested methods are flyers, daily bulletin notices, articles in local news media, referral cards, and briefings for newly assigned key personnel. Another effective method is to distribute a newsletter to supported units. Some of the subject areas that can be included in a newsletter are as follows:

(1) MAIT lessons learned.
(2) Logistics information of general interest.
(3) Solutions to common problems encountered by MAIT.
(4) Situations that require quick remedial action.
(5) Mobilization.

u. The primary duty of MAITs during mobilization is to augment the resources of the command or installation to which assigned. The teams will also develop the capability to perform the following tasks during mobilization and intensified buildup operations:

(1) Provide A and I in equipment pre–embarkation reviews. This includes validation of condition classification.
(2) Augment MACOM assistance team capabilities.
(3) Develop on–site training programs.

v. Team integrity should be retained, where possible, in order to further efficient return to peacetime operations.

w. Consideration will be given to the allocation of mobilization augmentees for assignment to MAITs.

x. Records and reports will be handled as follows:

(1) The MAITs will maintain a DA Form 5480–R (Maintenance Request and Assignment Register) of visits conducted. DA Form 5480–R will be locally reproduced on 8 1/2– by 11–inch paper. A copy for local reproduction purpose is located at the back of this regulation. All time expended by team members, including hours for responding to telephone requests, will be shown on the register. These data will be used to support requests for additional TDA spaces or to defend existing MAIT manning levels.

(2) A visit summary will be prepared after each visit. It will describe actions to be taken and problems that require assistance of a support organization or higher headquarters. The number of copies prepared and the distribution of each type of visit summary will be as follows:

(a) Requested visit. Prepare three copies of the visit summary. One copy will be furnished to the commander of the unit visited, the requester, and the MAIT privileged information files.

(b) Directed visit. Prepare three copies of the visit summary. One copy will be furnished to the commander of the unit visited, the commander directing the visit, and the MAIT privileged information file.

(c) Programmed visit. Prepare two copies of the visit summary. One copy will be furnished to the commander of the unit visited and the MAIT privileged information file.

(3) The MAIT will provide a written report quarterly to the headquarters of the activity to which assigned. The report will contain personnel spaces authorized, personnel assigned, number of units visited/man–days expended, number of telephone inquiries completed, man–days lost to TDY or leave, number of unit requests not completed and reasons why, and suggestions for improvement of the MAIT program.

4–21. Repair parts supply (Class IX)

a. Repair parts allocation, stockage, and supply policies and procedures are contained in AR 710–2, AR 420–18, DA Pam 710–2–1, DA Pam 710–2–2 and associated automated systems technical manuals.

b. Recovery of reparable secondary materiel is controlled by AR 710–2.

Section IV
Contract Maintenance Support

4–22. Private enterprise

a. When the Army maintenance system cannot provide required support, the Army will rely on the competitive private enterprise system, both domestic and foreign.

b. The MACOMs will ensure that essential quality requirements for maintenance service contracts be defined, quantified, measured, and assessed during the contracted–out support process. Solicitations and contracts for maintenance services will require—

(1) Quantitative measures of quality and performance.

(2) Contractors to submit historical data that will show the capability to achieve these quantitative measures. These data are used in the solicitation review process.

(3) Specific contractual provisions for obtaining contractor conformance, such as award and incentive fee provisions for meeting performance quality, and cost standards.

(4) Test and evaluation to be performed to demonstrate performance, and corrective actions to be taken on deficiencies revealed.

c. Commanders contracting for commercial DS or GS level repair of equipment will ensure that these contracts include provisions for collection of DA Form 2407 or DA Form 5504 maintenance data from the contractor when cost effective. This data will be included in reports to the WOLF at LOGSA. When the cost effectiveness of data collection is questionable, such as for small, one–time contracts, the local commander will review the requirement and determine if the data will be collected.

4–23. Prohibitions

a. Maintenance by contract personnel is prohibited when—

(1) The maintenance workload to be performed is necessary for individual and unit training.

(2) A satisfactory commercial source is not available and cannot be developed in time to provide maintenance support when needed.

(3) Contract maintenance support will result in higher cost of maintenance support to the Army.

(4) The product or service is available from another DOD component or another Federal department or agency.

b. Restrictions are as follows:

(1) Contractor maintenance personnel will not be stationed permanently forward of the Corps rear boundary.

(2) Contractor maintenance personnel may travel forward of the Corps rear boundary on a case–by–case basis as individual equipment failures occur to provide temporary on–site maintenance.

4–24. Foreign enterprise limitations

a. Foreign private enterprise can be used only in the following situations:

(1) U.S. contractor or DOD sources lack the organic capacity to perform the task in the time required. In this situation, use of foreign private enterprise is interim in nature until U.S. capability can be developed or expanded.

(2) Use of foreign private enterprise has been predetermined by international agreement.

(3) The necessity for establishing an alternate foreign source has been determined formally by DOD as being in the best interests of U.S. strategic or tactical objectives.

(4) Use of foreign private enterprise will not affect the development or maintenance of U.S. national capabilities.

b. The use of foreign contractual services will be contingent on U.S. contracting authority certification of quality, capability, and capacity.

4–25. Readiness of MTOE units

The use of contractual services to support readiness of MTOE units will be generally limited to short–term tasks—

a. Pending the attainment of a unit, DS, or GS organic capability or to allow for peak workloads of a transitory nature.

b. When required, programmed, and contracted by the materiel developer for an interim period to attain an earlier operational status for initial fielding of new military material.

c. For the completion of overhaul or modification of military materiel when—

(1) The extent or complexity of the modification or modernization work to be accomplished requires the technical qualifications of the original manufacturer.

(2) Repairing complex electronic devices that require long–term training for skill development and expensive stand alone test equipment.

4–26. Contingency plans

Contingency planners will consider the maintenance potential of

facilities in overseas areas that may be operated under military control or by contractual arrangements with commercial sources.

4–27. Classified communications security

All proposals for contract maintenance support of classified communications security/signal intelligence (SIGINT) and electronic warfare (EW) equipment must undergo an assessment of risks to national security prior to using commercial maintenance sources. This special risk assessment must be conducted by the National Security Agency (NSA). The proposal, including performance work statements (PWS) with additional information identifying the COMSEC/SIGINT and EW equipment, density supported, and levels of maintenance to be performed, should be submitted through HQDA (DAMO–C4T), WASH DC 20310, to Director, National Security Agency, ATTN: S–04, Fort Meade, MD 20755. Classified equipment not under NSA cognizance being considered for maintenance support contracts to contractors other than original equipment manufacturers, will be given an assessment of risk as prescribed above. Approval by HQDA is required prior to contract award. In the event approval for solicitation is granted by NSA and/or HQDA, then the provisions of chapter 5, section 3 apply to further processing.

Section V
Interservice Maintenance Support

4–28. General

Interservice support agreements (ISAs) will be fully explored prior to the submission of requests through MACOMs to HQDA (DALO–SMM) for additional or expanded organic maintenance facilities. This includes modernization of tooling and materiel of non–MTOE support and depot level maintenance facilities. ISAs will be used to provide maintenance support services when—

a. This means is the least costly to the Government.

b. Materiel to be supported is common to the U.S. Army and another service.

c. The supporting agency or component has the available capability to render such support.

d. The provision of such support provides for a reduction in materiel not mission capable and/or provides the potential for reducing investment and operating support costs.

4–29. Exceptions

ISAs will not be used—

a. To document transfer of responsibility for a function or mission from one DOD component to another.

b. When an organic support capability and capacity for this service is required to sustain military readiness.

4–30. Personnel support

When another DOD component or Federal Government agency has the available capability with the exception of personnel, and the provision of the support is to the overall advantage of the Government, the matter will be referred to HQDA (DALO–SMM) for resolution prior to establishing duplicate facilities.

4–31. Reciprocal support

Upon request, the Army will provide maintenance support to other DOD components and Federal Government agencies to the extent that its military requirements will permit, and available capabilities and capacities exist. This support will be executed at the lowest practicable command level.

4–32. Funding support

Each Army element is responsible for programming, budgeting, and funding to support the ISA to which it is a party. Whenever manpower or fund requirements exceed available resources, MACOM commanders will seek HQDA (DALO–SMM) approval.

4–33. Provisions of ISAs

ISAs will—

a. Specify responsibilities for furnishing repair parts and other support materiels required for the completion of the maintenance operations. Normally, materiels are provided by the agency or component furnishing the service.

b. Make suitable provisions for the interchange of maintenance performance and management data between all parties to the agreement.

c. Contain provisions for review every 2 years to determine whether the agreement should be continued, modified, or terminated.

4–34. Transfer of resources

a. The transfer of resources (personnel, funds, and materiel) resulting from the establishment, modification, or termination of local support agreements will be accomplished per existing Army and DOD procedures.

b. Army agencies will provide interservice support on a reimbursable basis. Non–reimbursement arrangements are authorized for service provided in combat areas.

Section VI
Maintenance Programs

4–35. Chief of Staff, Army Award for Maintenance Excellence Program

a. Purpose and objectives.

(1) The Chief of Staff, Army Award for Maintenance Excellence (AAME) program is sponsored by the American Defense Preparedness Association (ADPA) on an annual (by fiscal year) basis and recognizes Total Army units/activities that demonstrate excellence in unit-level maintenance programs.

(2) The objectives of the AAME program are to improve and sustain unit maintenance readiness to evaluate the status of total unit maintenance operations; to recognize outstanding unit level accomplishments and initiatives; and to promote competition at MACOM, HQDA and DoD level.

(3) Although the AAME program evaluates unit level maintenance operations performed in compliance with the Army's standard maintenance policies and procedures, the evaluation areas also encompass many principles of Total Army Quality (TAQ) and support a unit's participation in TAQ programs. The AAME evaluation categories of readiness, maintenance management, maintenance training, and leadership/innovation correspond closely to TAQ evaluation criteria of business results, process management, human resources development, and leadership. Where applicable these corresponding TAQ criteria have been shown and incorporated to assist units in using their participation in the AAME program to support participation in other TAQ-based programs (e.g., the Army Communities of Excellence Program).

b. Responsibilities.

(1) The CSA, VCSA, and DCSLOG, or their designated representatives, will present trophies or plaques, provided by ADPA, to each of the units/activities that are selected as AAME winners and runners–up.

(2) The DCSLOG will—

(a) Provide program funding guidance, policy and overall supervision of the program.

(b) Determine the most appropriate means of award presentation and coordinate the annual award ceremony.

(3) MACOM commanders will—

(a) Promote competitions at all levels of command and develop awards to recognize units/activities participating in all levels of the competition process.

(b) Review Unit Maintenance Profile (UMP) packets submitted by subordinate organizations. Select those UMP packets to be nominated to the HQDA–level AAME competition in accordance with instructions and criteria in Appendix D.

(4) Cdrs TRADOC, CNGB, and CAR will provide board members for the HQDA evaluation process. Members are required for both the Phase I centralized board and Phase II on–site evaluations each year.

(5) The Cdr, USAOC&S will—

(a) Serve as executive agent for administration of the AAME Program. With HQDA (DALO–SMM), develop and coordinate updates and modifications to policy and administrative instructions, and developing, revising, and maintaining security of evaluation protocols used to select semi-finalists, runners–up and winners.

(b) Convene the HQDA evaluation board and on–site evaluation teams.

(6) Unit commanders (or equivalent) will conduct their programs within the guidelines established in this paragraph and in Appendix D.

c. Categories of competition.

(1) Units/activities will be nominated to compete in one of twelve categories. The categories are based upon the Army component of the unit, and the density of unit equipment.

(2) The four component competition areas are—

(a) Active Army TOE/MTOE unit

(b) Army National Guard (ARNG) TOE/MTOE unit

(c) USAR TOE/MTOE unit

(d) TDA unit (any component) equipment

(3) Within each of the four component competitions, units will compete in one of three categories, based on the amount of organic equipment (e.g., vehicles; weapons; protective masks; mess equipment; medical equipment; test, measurement and diagnostic equipment, tools, etc.) their unit level maintenance programs are required to support, as listed in the "authorized" column of the unit MTOE/TDA. Equipment maintained for other units/activities will be counted only if support agreements have been developed and are included in the UMP nomination package. The equipment density categories are—

(a) Light density–50 to 600 total items of equipment

(b) Intermediate density–601 to 1,500 total items of

(c) Heavy density–More than 1,500 total items of equipment d Competition restrictions.

d. Competition restrictions.

(1) Nominations will be accepted from the following MACOMs:

(a) Eighth U.S. Army

(b) U.S. Army, Europe, and Seventh Army

(c) U.S. Army Forces Command

(d) U.S. Army Pacific

(e) U.S. Army South

(f) National Guard Bureau

(g) U.S. Army Intelligence and Security Command

(h) U.S. Army Medical Command

(i) U.S. Army Information Systems Command

(j) U.S. Army Materiel Command

(k) U.S. Army Military District of Washington

(l) U.S. Army Military Traffic Management

(m) U.S. Army Special Operations Command

(n) U.S. Army Training and Doctrine Command

(o) U.S. Army Criminal Investigations Command

(p) U.S. Army Corps of Engineers

(q) U.S. Army Space Command

(2) The number of nominations which may be submitted by a MACOM are limited.

(a) Each Active Army MACOM may submit 3 nominations for the Active Army TOE/MTOE competition: 1 light, 1 intermediate and 1 heavy equipment density unit.

(b) FORSCOM may submit 9 nominations for the USAR TOE/MTOE competition: 3 light, 3 intermediate and 3 heavy equipment density units. All other MACOMS with USAR units may submit 3 nominations for the USAR TOE/MTOE competition: I light, I intermediate, and I heavy equipment density unit.

(c) The NGB may submit 9 nominations for the ARNG TOE/MTOE competition: 3 light, 3 intermediate and 3 heavy equipment density units.

(d) Each MACOM may submit 3 nominations for the TDA competition: 1 light, I intermediate and 1 heavy equipment density unit/activity.

(3) The program is designed to evaluate unit level maintenance operations at brigade, battalion, company, battery, troop and equivalent MTOE/TDA organizations. However, parent units (e.g., brigade, battalion) who compete must address all subordinate elements in their UMP nomination packages.

(4) With the approval of the responsible MACOM commander, detachments that meet all other requirements of this regulation and are assigned unit maintenance functions may compete. Detachments, teams, or other elements that are temporarily separated from the parent organization will compete as part of their parent unit and not as a separate entity.

(5) Units that have experienced effective date changes to their MTOE or TDA during the competitive FY will be evaluated on the MTOE/TDA under which they were organized for the greatest part of the year. Commanders should note MTOE/TOE changes in their comments.

e. Submission of nomination packages.

(1) Instructions for preparing and submitting the Unit Maintenance Profile nomination package are listed in Appendix D.

(2) Units will submit UMP packets through command channels to their appropriate MACOM.

(3) MACOMs will review and select those UMP packets to be nominated to the HQDA–level AAME competition in accordance with instructions and criteria in Appendix D. MACOMs will then endorse and forward the original UMP packets for each unit/activity nominated to arrive at the USAOC&S not later than 15 December following the fiscal year of competition.

(4) Submission of nomination packages to the USAOC&S constitutes consent for an on-site evaluation of the unit's maintenance program.

f. HQDA evaluation process.

(1) Phase I: Evaluation of UMP nomination packages.

(a) USAOC&S will convene an evaluation board and appoint an appropriate chairperson.

(b) The board members will be drawn from TRADOC service schools, OCAR, NGB, and other special activities. Members will have both a proven performance record and expertise in unit-level maintenance. Personnel will be in the grades of master sergeant through sergeant major, chief warrant officer through master warrant officer, and captain through lieutenant colonel or civilian equivalent.

(c) Phase I evaluation guidelines and scoring criteria will be developed by USAOC&S. The board will evaluate the UMP nomination packages and select three semi-finalists in each of the twelve competition categories.

(2) Phase II: On–site evaluations of semi–finalists.

(a) USAOC&S will appoint four on-site evaluation teams: Active TOE/MTOE, ARNG TOE/MTOE, USAR TOE/MTOE and TDA.

(b) The team members will be selected from TRADOC schools, OCAR, NGB, and other special activities. If possible, members will be selected from the Phase I evaluation board or have previous experience in conducting AAME on-site evaluations.

(c) Using the Phase II evaluation guidelines/scoring criteria, the on–site teams will evaluate each semi–finalist unit.

(3) The Phase I and II results will be combined to determine the winner and runner-up in each of the 12 competition categories. The final score is a combined score of both Phase I (30 percent of the final score total) and Phase II (70 percent of the final score total) results.

(4) HQDA (DALO–SMM) will notify the winners/runners–up by message as soon as possible after Phase II completion.

(5) The USAOC&S, ATSL–AAME, will compile and forward to each MACOM lessons learned from the UMP nominations not selected as semi–finalists. Lessons learned will be discussed at the annual maintenance award program IPR.

g. Publicity.

(1) To enhance its recognition value, all levels of command should aggressively publicize the AAME program winners. This may be accomplished through public affairs officers and may include announcements of winners in local newspapers; hometown news releases; and background information about the Army-wide aspects of the AAME program and its positive impact on unit level maintenance status.

(2) The ADPA should receive appropriate recognition in any publicity for its sponsorship of the AAME program.

(3) The USAOC&S will ensure that its Public Affairs Office is continually apprised of AAME events and achievements.

(4) Commanders will submit publicity information and photographs for historical purposes to the Commander, U.S. Army Ordnance Center and School, ATTN: ATSL–AAME, Aberdeen Proving Ground, MD 21005–5201.

h. Program Milestones.

(1) HQDA and USAOC&S program guidance updates–1 Oct (when necessary)

(2) Request for DA evaluation board members–1 Nov each year

(3) DA Phase I Evaluation Board–Jan each year

(4) DA On–Site Phase II Team visits–Feb/Mar each year

(5) Army Awards Presentation–NLT 90 days following announcement of winners/runners–up

(6) PS Magazine and public affairs articles—As required

Light units support 50–600 items of equipment
Intermediate units support 601–1500 items of equipment
Heavy units support 1500+items of equipment

4–35.1. Secretary of Defense Maintenance Award Program

a. The Secretary of Defense Maintenance Awards Program annually recognizes six units selected from among all Services who have demonstrated the most significant maintenance achievements in mission support and maintenance accomplishments within DoD. Additionally, one of the six units is selected as the best overall, and is awarded the Secretary of Defense Phoenix trophy. The DOD Maintenance Awards Program is conducted in association with the ADPA, and the publicity restrictions outlined in paragraph 4–35g(2) above apply.

b. The Secretary of Defense Maintenance Award is an impact award which recognizes maintenance excellence performed during high-intensity missions in demanding environments. Each service may nominate 2 units in each of the 3 categories: small (25–300 authorized personnel), medium (301–999 authorized personnel), and large (1000+ authorized personnel). In order to compete, units must have operated under the authorized structure for at least one half of the competition.

c. Any MTOE/TDA combat arms, combat support or combat service support unit that performs unit, DS, or GS level maintenance can be nominated by MACOMs to HQDA to compete in the Secretary of Defense Maintenance Awards Program. This program evaluates units based on four criteria: mission accomplishments, effective use of maintenance resources, innovative management accomplishments, and personnel quality of life programs. The Secretary of Defense Maintenance Awards selection process does not include an on–site evaluation. The entire award score is based on a centralized board evaluation of the nomination packet which includes the basic information sheet (figure 4–1), a summary of actions covering the four evaluation criteria, a written award citation, and command endorsements. The three finalists for the Phoenix Trophy may include an on–site visit by an OSD (MI&L) team.

d. MACOM nominations will be processed by an evaluation board conducted separately from the AAME evaluation and convened in January of each year by the Program Executive Agent, the Commander, USAOC&S. The board will be co-chaired by HQDA (DALO–SMM). MACOM nomination packets should be submitted by registered mail to Commander, U.S. Army Ordnance Center and School (USAOC&S), ATTN: ATSL–AAME, Aberdeen Proving Ground, MD 21005–5201. Nomination packets should be submitted in hard-copy and in an IBM compatible disk format, preferably Word Perfect. Packets should arrive NLT 15 December each year. MACOMs may submit units for both the AAME and the DoD competitions.

e. Detailed instructions for preparing the Secretary of Defense Maintenance Awards nomination packet can be found in DoD Directive 1348.30, Secretary of Defense Maintenance Awards Program. MACOM nomination packets must include the basic information, the summary of actions, and the award citation. The summary of actions should include a comprehensive narrative on each of the following areas:

(1) Mission Accomplishments. Accomplishments should stress maintenance efforts and the impacts of those efforts on the unit's or supported unit's operational capability and mission accomplishment.

(2) Effective Use of Maintenance Resources. Descriptions of the competing unit's accomplishments which illustrate good stewardship of maintenance resources.

(3) Innovative Management Accomplishments. Descriptions of maintenance management actions taken within the competing unit to improve the unit's mission capability.

(4) Personnel Quality of Life Programs. Descriptions of programs or actions aimed at improving motivation or morale of maintenance personnel.

f. Units are encouraged to include color photos which clearly depict the Summary of Actions.

1. Service: (i.e., United States Army)

2. Specific unit designation of nominated unit:

3. Category/Unit size of nominated unit: (i.e., Large/401 authorized personnel);

4. Point of Contact at nominated units should include primary and alternate numbers with name, phone (commercial) and DSN number. (If the unit is deployed, provide a telephone number for access to the nominee POC.

5. Military Department points of contact should include the name, phone (commercial), DSN and FAX numbers. (completed by HQDA)

6. Complete mailing address of the nominated unit and its higher headquarters. (Include the appropriate office symbol and the attention POC.)

7. Complete electronic message address of the nominated unit and its higher headquarters. (I his is the Automatic Digital Network address, not the E–rnail address.)

8. Background information for nominated unit should include unit size and location (category) for officers and enlisted.

9. Unit mission statement: (Not to exceed five lines).

10. Operational chronology (during award period 1 October to 30 September of the following year), of significant operational events, deployments and major training exercises should include operation, location and dates.

Figure 4-1. Basic Information Sheet

4–36. Army Oil Analysis Program (AOAP)

The objectives of the AOAP are to improve operational readiness of Army equipment, promote safety, detect impending component failures, and conserve lubricating and hydraulic oils by applying on–condition oil changes.

a. The CG, AMC is the executive agent for the AOAP. Approval of all policy pertaining to the AOAP rests with the DCSLOG. In addition, the CG, AMC will—

(1) Exercise program management over the AOAP.

(2) Ensure that the U.S. Army Aviation and Troop Command (ATCOM), as the AOAP equipment manager, funds and procures laboratory equipment.

(3) Ensure that AMC major subordinate commands—

(a) Recommend systems for inclusion in the AOAP and sampling intervals for these systems.

(b) Configure systems to use oil sampling valves where feasible.

(4) Provide the DA Program Director, Army Oil Analysis Program, who will—

(a) Provide management guidance, technical supervision, and assistance to all Army activities regarding the AOAP.

(b) Conduct annual unannounced laboratory assistance and assessment review (LAAR) visits to monitor laboratory operations.

(c) Serve as the functional manager for the AOAP Standard Data System, as prescribed in AR 25–3 and DA Pam 25–6.

(d) Serve as the executive agent of the depot oil analysis program.

(e) Ensure compliance with the Joint Oil Analysis Program (JOAP) as specified in AR 700–132.

(f) Approve weapon systems and end items recommended for inclusion in the AOAP.

(g) Approve sampling intervals.

(h) Develop and maintain component wear–metal evaluation criteria for systems in the AOAP; ensures that criteria are published in the proper laboratory technical manuals.

(i) Plan and coordinate research and development to improve oil analysis techniques.

(j) Prepares and update the AOAP 5–Year Program Plan (RCS CSGLD–1944). Coordinate resources prior to redistribution of workload.

(k) Develop and maintain a prototype performance work statement for use in solicitation documents for the contract operation of AOAP laboratories. The program director will also assist in the review of contractor bids and proposals and evaluate the qualifications of contractor personnel to satisfy the terms of the contract.

(l) In coordination with the Joint Oil Analysis Program, Technical Support Center (JOAP–TSC), ensure that the procedures prescribed in the JOAP laboratory manual regarding certification of equipment and personnel are compatible with established requirements for AOAP laboratories.

(m) Ensure that all AOAP laboratories meet and maintain requirements for certification prescribed in the AOAP laboratory manual.

(n) Serve as technical adviser for the assembly and operation of mobile oil analysis laboratory facilities.

b. MACOM commanders will—

(1) Ensure that all subordinate commands participate in the AOAP.

(2) Establish oil analysis laboratories in coordination with the AOAP director.

(3) Fund the operation of laboratories.

(4) Ensure standard statement of work is used in solicitation documents for the contractor operation of AOAP laboratories.

c. The CG, TRADOC, is responsible for developing and incorporating AOAP instructions into all appropriate service schools' programs of instruction.

d. The following policies apply to the AOAP:

(1) The AOAP is mandatory at all levels of maintenance operations for specified materiel, including overhaul for QA purposes.

(2) All Army aircraft and those systems identified in DA Pam 738–750, chapter 4, will be enrolled in the AOAP. Additions or deletions must be approved in writing, by the AOAP Director.

(3) The AOAP will be executed between the laboratory and the user unit.

(4) The lubricating and hydraulic oils from all components enrolled in the program will be evaluated by the servicing AOAP laboratories. Intervals are specified in DA Pam 738–750, chapter 4, TB 43–0106, or, upon notification, by the servicing AOAP laboratory.

(5) Upon receipt of a DA Form 3254–R (Oil Analysis, Recommendation, and Feedback) issued by the AOAP laboratory, the unit commander will place the equipment in a not mission capable maintenance status until the maintenance action is completed. To ensure safety of flight, an aircraft may be placed in a not mission capable status before formal receipt of a DA Form 3254–R.

(6) All units and levels of command will have an AOAP monitor who is adequately trained by the supporting lab or installation AOAP monitor.

(7) Each AOAP laboratory will provide oil analysis support per applicable publications and supplemental guidance provided by the program director.

(8) Oil sample valves will be installed on all vehicles and equipment enrolled in AOAP as specified by the materiel proponent. GS and depot activities will install sample valves during overhaul and repair of assemblies as needed.

(9) During wartime, AOAP priority will be given to aeronautical items.

(10) During the transition to war AOAP support will be provided by fixed labs and mobile or portable systems as they are available.

(11) During wartime, AOAP service will be—

(a) Provided as far forward as possible using the most responsive system available.

(b) Event oriented, occurring during unit stand downs, reconstitutions, and the conduct of DS and GS levels of maintenance.

(12) Direct communication between the AOAP program director and the various command operating elements and laboratories is authorized. Correspondence will be sent to the Commander, USAMC Logistics Support Activity, ATTN: AMXLS–LAP, Redstone Arsenal, AL 35898–7466.

e. The establishment and refinement of normal and abnormal wear metal concentration patterns is completely dependent on correlation of analytical data with actual conditions found at disassembly inspections. Feedback to the laboratory is essential to refine evaluation criteria, to increase the accuracy of laboratory predictions, and to recommend design changes in those major assemblies showing an abnormal failure rate through the AOAP. Therefore, operating and maintenance activities must furnish maintenance and disassembly inspection data to the AOAP laboratories regarding engines or other major assemblies. The procedures for furnishing feedback are contained in DA Pam 738–750 and TB 43–0106.

f. Detailed operating procedures for the AOAP are contained in DA Pam 738–750 and TB 43–0106.

g. Interservice support is provided according to AR 700–132.

4–37. Army warranty program

a. Materiel under warranty will be identified and maintained per the detailed policies and guidance contained in AR 700–139.

b. Warranty actions will be completed as directed in AR 700–139 and reported under DA Pam 738–750 and DA Pam 738–751.

c. Unit readiness and mission effectiveness will take priority over warranty actions. The supporting warranty coordinator (WARCO) will be notified immediately when equipment must be fixed first and the warranty settled later.

d. Application of the AOAP to items under warranty is specified in the item's warranty technical bulletin. AOAP procedures supplement the instructions directing oil changes for equipment under warranty.

e. Representatives of the Logistics Assistance Program will provide advice and assistance to MACOM WARCO and personnel at unit, DS, and GS levels of maintenance.

f. Manufacturer's standard warranties will be accepted when items are locally procured. Special warranties will be included in local purchases only when they are cost–effective and executable by the user.

4–38. Sample data collection (SDC)

a. Objectives and purpose.

(1) The SDC program is established per DOD 4151.18 to improve weapon system performance, logistics supportability, and maintainability, and to support ARSTAF programs. It is an integrated, closed loop field data collection and management system authorized by DA. Under the program, maintenance and logistics data are collected through onsite observation of a sample number of designated end items operating in selected units for specified periods of time. Dedicated personnel collect the data in a manner determined by each SDC proponent.

(2) Analysis of SDC information provides an assessment of equipment supportability and performance to support initiatives relating to manpower and personnel integration (MANPRINT), safety, design improvements, production processes, MWOs, supply, maintenance, manpower requirements criteria, engineering evaluation, and operating support cost reduction. The SDC program establishes an audit trail to conduct quality assurance per AR 702–3.

b. Program policies.

(1) USAMC LOGSA is the DA/AMC executive agent for SDC and will—

(a) Receive guidance and direction from DA DCSLOG.

(b) Assume full AMC responsibility for administering the program.

(c) Develop and executes policy guidance.

(d) Conduct evaluations at the MACOM, proponent, and participating unit levels to assess operations and evaluate compliance with regulatory guidance.

(e) Provide assistance, as required, in all aspects of the SDC program.

(2) The SDC controls apply to all DA activities soliciting materiel system field performance information from the Army user, except TAMMS data collected under DA Pam 738–751 (TAMMS–Aviation). All requirements for data collection on fielded equipment in the hands of the user will be approved by DCSLOG through the DA/AMC executive Agent. The AMC MSC with equipment proponency is designated the SDC proponent for conventional projects and special field information tasks (SFIT). The AMSAA is the SDC proponent for all Field Exercise Data Collection (FEDC). All SDC projects are managed and executed by the applicable SDC proponent.

(3) Any difference between MACOMs relative to roles and responsibilities involved in individual SDC projects resolved by DCSLOG.

(4) The SDC empirical data is a mandatory source of information for materiel proponents to use when providing information required by functional and staff elements.

c. Types and methods of SDC.

(1) There are three types of SDC, as follows:

(a) Conventional SDC encompasses specific equipment end items and is comprised of mandatory and discretionary projects. Mandatory SDC projects are directed by DCSLOG and are funded utilizing applicable PM funding. Discretionary projects are selected by the equipment proponent. When properly justified, any activity requiring data may request that the SDC proponent establish a discretionary SDC project. Discretionary projects are normally funded by the activity identifying the need for information. All conventional projects have a duration of 3 years, unless extended or terminated by DA.

(b) The SFITs are short term in nature (1 year or less) and are designed to support PEO, PM, and MSC requirements that do not dictate a full–scale SDC project. The SFITs may also be used to augment selected ARSTAF objectives but cannot duplicate other ongoing efforts. An activity having a need for materiel system field performance data may request a SFIT through the SDC program. The SFITs are normally funded by the requesting activity (PM or equipment proponent).

(c) The FEDC encompasses collection of maintenance and operational data on mission essential end items, normally Equipment Readiness Code A, as defined in AR 220–1 during selected major field training exercises (FTX). The DA–approved FEDC projects have a duration of 3 years, unless extended or terminated by DA.

(2) The three methods or levels of data collection are listed below. They are authorized commensurate with information required, objectives to be achieved, and cost considerations. The data collection method to be selected is outlined in the field procedures guide (FPG) and is the one most cost effective but least disruptive of field operation, while still accomplishing the objectives of the SDC effort.

(a) Level 1. Owning and support personnel will allow SDC data collectors to review/copy standard DA forms. Additional data elements, as required, will be recorded by owning unit and support personnel on standard DA forms or on DA approved specially designed forms. Completion of specially designed SDC forms by unit/support personnel is restricted to an absolute minimum and requires strong justification. The SDC proponent representatives will collect DA modified/specially designed forms, perform quality checks, transcribe data to specially designed forms as required, reduce data if required, and forward forms/reduced data to a designated site.

(b) Level 2. Owning unit and support personnel will allow SDC data collectors to review/copy standard DA forms. Additional data elements, however, will be collected by SDC proponent agency representatives verbally and through direct observation of owning and support units. The SDC proponent representatives will collect

standard DA forms, perform quality checks, transcribe data to specially designed forms, reduce data, if required, and forward forms/reduced data to a designated site. No additional reporting burden will be placed on participating field units.

(c) Level 3. This data collection method is highly detailed in nature and is associated with data collection during intensive usage scenarios in which highly complex reliability, availability, and maintainability data, to include data reported through various standard Army systems, will be collected by SDC proponent representatives. No additional reporting burden will be placed on field units. Examples of this method include follow–on evaluations, Lead the Fleet, and Fleet Leader Programs. This method will only be utilized when properly justified to accomplish complex requirements. The FEDC is not under this level.

d. Planning, programming, and budgeting for SDC.

(1) Requirements for SDC to be conducted on each weapon system/equipment are addressed in the individual Materiel Fielding Plan (MFP), per DA Pam 700–142. The MACOM concurrence with SDC concept, defined in the MFP, will be formally conveyed through the signed materiel fielding agreement. The ILS manager will input SDC funding milestone No. 2023, 3008, and 3573 into the Army Milestone Management System (AMMS), per DA Pam 700–26.

(2) A list of Army systems designated by DA as intensively managed, of high interest, or significantly mission critical will be obtained and maintained by DCSLOG. The list will be forwarded to LOGSA at least 13 months prior to the beginning of the fiscal year for which it applies. The LOGSA will coordinate the list of intensively managed items with the SDC proponents for determination of applicability for mandatory status and feasible implementation dates. The proponents can recommend additional systems for mandatory status, based on their knowledge of problems or special concern relating to the systems/items.

(3) The list of items recommended for mandatory status, to include funding requirements, will be forwarded by LOGSA to DCSLOG at least 11 months prior to the beginning of the fiscal year for which it applies. DCSLOG reviews the list and forwards to the ASARDA for approval. This list of approved mandatory projects will be forwarded by LOGSA to the SDC proponents and by ASARDA through PEO channels to the PMs. The SDC proponents and PMs should receive the approved list at least 9 months prior to the beginning of the fiscal year for which the list applies. The list will be used to plan for SDC. If funding constraints, slippage in fielding dates, etc., preclude projects from being implemented in the year designated by the mandatory list, the projects will be scheduled for the appropriate year.

(4) Project/program managers will plan and program for procurement appropriation (PA) funds to support mandatory SDC projects and applicable discretionary SDC projects under their purview. Items, estimated cost, timeframes, etc., will be developed in coordination with the SDC proponent. Funding requests cover the duration of the project and will be forwarded through the annual budget process as far in advance as possible. Funds should be identified to the SDC program and transferred per the appropriate AR.

(5) SDC proponents may select additional items/systems for discretionary SDC. SDC proponents will request Operation and Maintenance, Army (OMA) funds through the annual budget process to support discretionary projects that they plan to initiate.

(6) A 5–year plan of projected project starts, extensions, terminations, and changes will be maintained by LOGSA, in coordination with the SDC proponents. The PMs will provide input for the plan to the SDC proponents, as requested. The 5–year plan will be provided annually to all MACOMs and interested organizations for use in planning. Change in fielding dates, unit size/location, availability of funds, etc., result in continual changes to the plan, particularly in the outyears.

(7) Commanders/directors of other interested units or activities (materiel development, combat, testing, training, and system analysis organizations) will participate in the planning and implementation of SDC projects as requested. They should further identify any anticipated unique SDC reporting requirements.

(8) Mandatory SDC projects will be reviewed annually by DCSLOG for appropriate system coverage, compliance with the approved objectives, and conformance to policy.

(9) The LOGSA will produce and distribute an annual DA SDC program summary not later than (NLT) 60 days after the end of the fiscal year. The MACOMs, SDC proponents, and other organizations, when requested, will provide input to the annual DA SDC program summary NLT 30 days following the end of the fiscal year. The SDC proponents will conduct an annual cost benefit validation and provide the results as part of their input.

(10) A worldwide conference will be hosted annually by LOGSA to review program status, resolve problems, and plan for the future of the program.

e. SDC Documentation. The following SDC documentation will be prepared by the SDC proponent for each SDC project to be initiated:

(1) *Nonconventional SDC.*

(a) SFIT: A letter of justification is required for each project.

(b) FEDC: A memorandum of agreement between USAMSAA, LOGSA, and the participating MACOM is required for FEDC projects.

(2) *Conventional SDC.*

(a) The SDC plan is a planning document to identify resources; sampling methodology; purpose, objectives, and benefits (in general statement format); type of SDC project; project duration; cost and type of funding; identity/description of the end item; identification of the participating units and support units, including posts, camps, or stations; collection method and data elements, distribution list for output products; and support required from field MACOMs.

(b) The SDC FPG identifies SDC responsibilities for proponent agency representatives and commanders of selected units, and provides data collection procedures, forms preparation, and disposition instructions to participating units and/or SDC proponent agency representatives.

f. Implementation, changes, extensions, and termination of SDC projects.

(1) The SDC proponents will initiate mandatory SDC projects in compliance with ASARC/DAB II direction.

(2) The MACOMs will approve units nominated to participate in SDC efforts. The LOGSA will coordinate with the MACOMs on units/locations/dates/POCs for implementation at the earliest point possible in the planning process.

(3) The executive agent approves all conventional and non–conventional SDC project implementations, extensions, and terminations.

(4) The proponent agency implementing an SDC project used by more than one service will coordinate the documentation with the other using services, as appropriate.

(5) The SDC proponent will coordinate implementation requests, to include the plan and the FPG, with the DA/AMC executive agent NLT 150 days from the scheduled implementation date. The SDC implementation requests will include the purpose of the project; unit identification code(s) of the participating unit(s); timeframe; and the identity, social security number, and security clearance of those individuals who will implement the SDC effort. The SDC proponent will forward an information copy of the request to the participating MACOM to facilitate advance planning.

(6) The LOGSA will review the implementation request and required documentation and forward them to the participating MACOM at least 120 days prior to project implementation.

(7) The MACOMs will review SDC project requests and documentation on mandatory, discretionary, and SFIT SDC project implementations and identify additional data and report requirements, as applicable. They also will coordinate with the applicable units.

(8) Field MACOMs will establish and implement procedures to provide SDC project approval, as applicable, to include POCs and

visit authorization clearances for AMC SDC implementations. Approvals will be provided to the executive agent, for further dissemination to the SDC proponent NLT 45 days prior to the scheduled implementation date.

(9) The MACOMs will assist SDC proponents in conducting their inventory of the equipment to be sampled. The MACOMs will ensure field units follow provisions of the field procedures guide (FPG), as it pertains to the participating and support units.

(10) Units will provide assistance and cooperation needed to obtain the required data. In particular, that data recorded per DA Pam 738–750 will be made available to the data collectors. Units will ensure that modified TAMMS and unique SDC forms are completed per the SDC FPG by unit personnel, when the MACOM approves the SDC plan and SDC FPG for a Level 1 method of data collection.

(11) Units will coordinate with any installation/in–country contracting officer representative (COR), as required.

(12) A change in participating units at new or existing locations for ongoing SDC projects must be justified by the SDC proponent. Requests will be staffed through the executive agent with the participating MACOM at least 110 days prior to change of unit.

(13) Requests for extension will be forwarded by the SDC proponent to the participating field MACOM with copy furnished the DA/AMC executive agent NLT 110 days prior to the scheduled termination date. Field MACOMs will provide a response to the DA/AMC executive agent NLT 60 days prior to the scheduled termination date. The DA/AMC executive agent will coordinates the final approval with the SDC proponent and DCSLOG. The DCSLOG will provide final approval. The SFITs cannot be extended past 1 year.

(14) Projects will be terminated when objectives have been met. Termination notices will be forwarded by the SDC proponent to the participating field MACOM(s) with copy furnished to the DA/AMC executive agency at least 30 days prior to scheduled termination. The DA/AMC executive agent will coordinate the response with the SDC proponent and DCSLOG. The DCSLOG will provide final approval.

(15) It is very important that the leadtimes established to coordinate the SDC documentation be met, in order for all parties to have time to complete necessary actions. If required to meet these deadlines, facsimile, electronic mail, or overnight express mail should be considered. Exceptions to the leadtimes should be rare and must be coordinated with the DA/AMC executive agent.

g. The SDC data.

(1) The SDC information will be provided to all command levels requiring it. The SDC information is consolidated for user feedback, logistic management, and engineering purposes. The SDC narrative evaluation reports will be treated as field inquiries for response to the applicable SDC office.

(2) The SDC proponents will provide periodic feedback information to participating SDC units and, where feasible, to units having similar equipment.

(3) Reports for each SDC effort will be published and distributed annually to the addresses identified in the SDC plan. A final report will be developed NLT 90 days after completion of the SDC project.

4–39. Maintenance float

a. There are two types of maintenance float, repair cycle float (RCF) and operational readiness float (ORF).

b. RCF is an authorized quantity of assets which are to be utilized by the NICP to replace like items turned in by the owning unit for a planned depot repair program. Procedures to account, manage, and issue RCF items will be in AR 710–1. The NICP may issue RCF assets to fill MTOE/MTDA or ORF shortages when other assets are not available.

c. ORF is an authorized quantity of assets for use by units with a DS/AVIM level maintenance mission to exchange with supported units when repairs cannot be accomplished within MACOM established guidelines. ORF assets awaiting issue will be maintained at the maintenance standard defined in paragraph 3–1*a*.

(1) During peacetime, ORF is designed to assist in maintaining the readiness and operational posture of units.

(2) During transition to hostilities:

(a) Units deploying before the outbreak of hostilities will deploy with unit allocated ORF equipment from the installation. The unit allocation will be by LIN, and will be the ratio of each unit's equipment to the total of equipment supported by the installation from which the unit is deploying.

(b) Upon the outbreak of hostilities, non-deployed MACOMs will utilize ORF to enhance equipment readiness and fill shortages. Any excess ORF will be reported to HQDA (ODCSOPS) for redistribution guidance. Deployed MACOMs will do the same, except they will use any excess ORF to fill initial battle losses.

(c) Units deploying to support peacekeeping, humanitarian aid, or disaster relief efforts have the option to deploy their authorized ORF assets with permission of their MACOM.

d. To be eligible for consideration as a DA maintenance float, an item must meet the following criteria:

(1) Have a standard study number (SSN).

(2) Be Class VII or Class II.

(3) Be authorized maintenance support at the DS/AVIM level, except for the following:

(a) ORF may be maintained at TRADOC schools and training centers when approved by CG, TRADOC.

(b) ORF may be maintained at TDA and USAISC off–sight maintenance activities if they are not collocated with an MTOE DS maintenance unit. The MACOM commander's approval is required.

(c) ORF authorized a Light Infantry Division (LID) will be separately identified and accounted for on the division level Standard Property Book System (SPBS) and may be stocked regardless of capability to perform DS maintenance on the item. </subpara3></subpara2></subpara1>

e. Those items with established eligibility must also fall into one of the following categories:

(1) Category I: Items on the DA critical items list, and items directed by ODCSOPS to have an ORF. These items will be reviewed at the discretion of HQDA.

(2) Category II: Items which are readiness reportable per AR 700–138 but are not Category I. Repeated low demand data will be cause for removal from ORF authorization unless retention can be justified by the requesting MACOM.

(3) Category III: Items which are not readiness reportable, but which are embedded in and directly affect the readiness of Category I and II items.

(4) Category IV: Low density or obsolete items.

f. ORF assets will only be issued when the priority designator (PD) on the work order is 01 through 06, and the estimated repair time exceeds the MACOM established time criteria.

(1) The decision to issue an ORF asset will normally be made by the IMMO, maintenance officer, or the AVIM production control officer. The decision will be made as rapidly as possible to ensure maximum mission capability.

(2) Supported units will accept the ORF item to be issued as long as it is a like item or an authorized substitute per SB 700–20 and it meets the Army maintenance standard in paragraph 3–1a

(3) The exchange of an unserviceable reparable end item for an ORF asset will be accomplished as a simultaneous turn-in and issue transaction. BII and COEI common to the end items will not be exchanged.

(4) The priority for work requests to repair an unserviceable ORF asset, and requisitions to replenish washed–out assets, will be the highest priority authorized for use by customer units supported.

(5) Each time a decision is made to float (whether assets are available or not), a demand for ORF will be recorded. A cumulative total of demands and issues will be maintained to support the annual utilization report. (refer to table 4–1).

g. ORF assets will not be used to:

(1) Provide a source of repair parts (controlled exchange or cannibalization).

(2) Expand currently assigned missions or set up new operational mission.

(3) Replace items that have been cannibalized during peacetime.
(4) Satisfy temporary loan requirements.
(5) Set up a peacetime pool of equipment to be held as assets to reconstitute the force.
(6) Fill unit equipment shortages.
(7) Replace uneconomically reparable equipment.

h. Specific ORF responsibilities are as follows:

(1) The DCSLOG will—

(a) DALO–SMM will approve requests for additions or deletions to the maintenance float support list and all new or revised float factors and notify AMC of any changes.

(b) Coordinate with ODCSOPS on approval of new ORF candidates and redistribution of unauthorized or excess ORF equipment.

(c) Approve and publish the ORF support list by 1 Oct each year.

(d) Furnish AMC approved float factors for publication in the TAEDP cycle.

(2) The ODCSOPS will—

(a) Include the maintenance float in the computations for the Army Acquisition Objective (AAO) using the approved factors from the TAEDP.

(b) Coordinate with ODCSLOG to redistribute ORF identified as excess or not authorized.

(3) Materiel developers (ASARDA (PMs/PEOs) and AMC) will:

(a) Ensure that maintenance float requirements established for equipment being fielded are based on wage data for sirnilar items or best available engineering data.

(b) Coordinate with ODCSOPS, TRADOC, and MACOMs to ensure that maintenance float is properly documented and authorized at MACOM level in conjunction with materiel fielding plan development.

(4) CG, AMC will—

(a) Review recommendations for additions/deletions to maintenance float and develop and submit the proposed ORF support list with float factors to HQDA for approval by 15 August each year.

(b) Compute total ORF authorization for DA approval.

(c) Validate ORF authorizations in the requisition–validation (REQ–VAL) system against the TAEDP authorizations. The total of ORF on–hand plus on requisition will not exceed the TAEDP authorization.

(d) Re–compute float factors annually, as required, based on wage data reported by MACOMs or HQDA guidance.

(e) Publish approved authorizations in the TAEDP.

(f) Publish approved float factors in SB 710–1–1.

(5) MACOM commanders, CNGB, and CAR will:

(a) Approve the establishment of ORF and appoint a float coordinator.

(b) Distribute ORF within the command.

(c) Establish repair time criteria to be used as the basis for issue of ORF assets.

(d) Determine the minimum quantity of ORF required to meet their needs and ensure that ORF on-hand and on requisition does not exceed the TAEDP authorization.

(e) Report the preview calendar year demand data for ORF by 15 May to the U.S. AMC Logistics Support Activity, ATTN: AMXLS–RB, Redstone Arsenal, AL 35898–7466. The format for the report is at table 4–1.

(f) Report any excess or unauthorized ORF assets to HQDA (DALO–SMM) for disposition instruction. Excess includes ORF assets on hand with no utilization during one reporting period. Excess will be distributed as directed by HQDA.

(g) Recommend additions or deletions to the ORF support list throughout the year. These recommendations, with supporting justifications will be forwarded to LOGSA.

(6) (6) The accountable officer will—

(a) Account for ORF assets per AR 710–2 and DA Pam 710–2–2.

(b) Ensure that all BII/COEI for ORF assets are on-hand and serviceable. Accountability and control of BII/COEI will remain with the owning SSA. (All equipment not included on aircraft inventory record and maintained by separate accountability will be removed before exchange).

(c) Direct the repair of unserviceable ORF items.

i. The following formulas will be used to obtain or update the float factors.

(1) For initial computation of the ORF factor during materiel development and fielding:

(FMC Rate times MTTR) divided by MTBF plus MTTR.
–FMC RATE obtained from AR 700-13.
–Mean Time Between Failures (MTBF) is in days.
–Mean Time To Repair (MTTR) is in days.

(2) The MTBF and MTTR are those operational requirements specified for that system by the CBTDEV, documented in the ORD, and included in the LSAR. When these elements are in rounds, hours, miles, or events, they must be converted to days. During development, MTBF and MTTR data will be obtained from the LSAR.

(3) For updating factors and computing initial factors for fielded equipment the following formula will be used:

–(FMC GOAL – FMC RATE divided by FMC Rate)
–FMC GOAL is from AR 700-138
–FMC RATE can be computed using the following formula:
(DENSITY times 365 DAYS)–TOTAL DOWNTIME–ORF TOTAL DOWNTIME divided by Density times 365 Days)–TOTAL DOWNTIME is total repair time (from WO opened to WO closed)
–ORF TOTAL DOWNTIME is the amount of downtime avoided because of ORF.
–DENSITY is the TAEDP authorization

(4) The formula for RCF factors is

Mean–Overhaul–Cycle–Time (MOCT) (–)
Mean–Time–Between–Overhaul (MTBO).
–MOCT is in months
–MTBO is in months

j. The float authorization and factors for an item will be deleted when:

(1) Directed by HQDA.
(2) The computed factor is .0000.
(3) The computed factor is less than .0100 and justification for retention is not received from MACOMs within one year.

4–40. Battlefield damage assessment and repair (BDAR)

a. The purpose of BDAR is to rapidly return disabled equipment to combat or to enable the equipment to self–recover. BDAR is the commander's responsibility, based on METT–T, and is accomplished by the operator/crew and unit/DS maintenance personnel. Realistic training must be performed during peacetime to ensure wartime proficiency.

b. Overview and guidance for the Army BDAR program will be provided by the BDAR Program Advisory Group (PAG) chaired by AMC and vice–chaired by TRADOC, AMSAA, and LOGSA.

c. BDAR procedures are designed for battlefield and training environments and should be used only in situations where standard maintenance procedures are impractical. These procedures are not meant to replace standard maintenance procedures.

d. Non–destructive BDAR procedures will be incorporated into peacetime maintenance training. Combat training centers and field training exercises provide excellent realistic training environments for BDAR. Peacetime BDAR involves low–risk fixes outlined in appendix E of BDAR TMs. Low–risk repairs are those that can be accomplished without risk to personnel or further damage to equipment and can be applied using approved BDAR kits under the supervision of qualified maintenance personnel. Peacetime BDAR repairs are temporary and will be replaced with standard maintenance repairs at the conclusion of the exercise whether in the field or in garrison.

e. Many items of equipment will not require the development of a BDAR TM. The BDAR concepts and TMs must concentrate on those items of equipment that have a significant impact on the outcome of specific combat missions.

f. BDAR doctrine and techniques will be evaluated during U.S. Army Ballistic Research Laboratory Live Fire Tests. Live fire test plans will incorporate BDAR into live fire tests on Army equipment to ensure that BDAR can be performed and to ensure such techniques are incorporated into appropriate equipment publications.

4–41. Painting, CPP, CARC, and marking of Army materiel

a. CARC/CPP responsibilities. The CG, AMC will provide management and direction for painting, CPP, CARC and marking of Army materiel as follows:

(1) Provide the Lead Army Organization for CPP/CARC.

(2) The Army Research Lab (ARL), Ft. Belvoir, Virginia has been given responsibility for testing and qualification of paint, technical instruction on painting procedures, and shelf life validation and extension.

(3) AMC major subordinate commands will ensures that CARC requirements are included in all maintenance and new procurement.

b. Policies for painting.

(1) CARC is the approved coating for all combat and combat support equipment, tactical vehicles, aircraft, and essential ground support equipment and secondary item containers such as engine, transmission and all ammunition containers, including appropriate kits except as amended below.

(2) Paint will be applied only when the present paint is unserviceable or the equipment is not painted proper colors for contingency missions.

(3) Repainting for the sole purpose of achieving uniformity or for cosmetic purposes is prohibited.

(4) Tactical equipment designed for single color CARC requirement will be painted with an approved color based upon contingency mission environment.

(5) Complete repainting may be done at DS, GS, and depot levels where OSHA–approved facilities are available.

(6) Painting at unit level using a brush or roller is limited to spot painting. Spot painting includes restoration of painted surfaces after repair.

(7) Spot painting of CARC painted equipment will be with CARC only.

(8) Scratches, chips, or marring of the paint surface observed during PMCS will be repaired at unit level to prevent corrosion damage.

(9) If items do not require painting, do not paint them. For example, items made of fabric or which have anodized or parkerized surfaces are not painted.

(10) Do not paint the following with CARC:

(a) Painted items that attain surface temperatures of 400 degrees fahrenheit, serve a heat–conducting function or serve a function of expanding and contracting during operation. Examples are manifolds, turbo chargers, cooling fins, and rubber hoses.

(b) Displacement watercraft which will be subject to prolonged salt water immersion. Examples are the logistical support vessel and the landing craft utility.

(c) Nondeployable equipment and fixed installation systems. Examples are railroad rolling stock and fixed power generation systems.

(d) Installation/TDA equipment such as military police cars, nontactical fire trucks, and buses.

(e) Aluminum transmissions that are enclosed in combat vehicle powerpack compartments. However, any ferrous components of the transmission must be protected with CARC or other rust–preventive agents.

(11) Environmentally acceptable paints that do not violate Federal, State, and local laws will be used at all times per technical data packages provided to depots, arsenals, and contractors.

(12) CARC–protected surfaces are not to be covered with petroleum or other products to improve the appearance of the equipment. Utilization of these products will reduce the chemical protection provided by CARC and increase the probability of injury.

c. Policies for camouflage pattern painting.

(1) CPP is a three–color design for use in wooded and other green vegetated areas and in some arctic or partially snow–covered areas. CPP also includes single colors for use in desert or totally snow covered areas.

(2) CPP is required for all equipment previously camouflaged in one of the four–color patterns.

(3) CPP is required for all equipment having an area greater than 9 square feet on any side.

(4) CPP for new equipment will be specified in the technical data package (TDP) and will be applied at the time of manufacture.

(5) Camouflage colors must meet requirements for spectral and infrared reflectance, in addition to color, as established by the CECOM Research and Development Center (CRDC), Ft. Belvoir, Virginia.

(6) CPP, when available, will be applied to equipment during depot rebuild/overhaul or product improvement programs. If the three–color pattern has not been developed, a single color base coat will be applied. Where possible, depots will apply colors that conform to unit contingency missions if requested.

(7) Camouflage pattern painting of equipment having only a base coat will be accomplished by DS and GS activities. Patterns may be obtained from CRDC, Ft. Belvoir. If requirements exist that differ from the approved patterns and color scheme, MACOMs must request development of the required pattern/color scheme.

(8) MACOM commanders are assigned responsibility and authority to camouflage paint equipment with patterns appropriate for contingencies. When a unit has more than one contingency plan, the CPP for the primary contingency will be used. Priority should be given to early deploying units.

(9) CPP will not be changed for training exercises.

(10) CPP will not be applied to the following:

(a) Equipment not requiring open area concealment.

(b) Nondeployable equipment and fixed installation systems.

(c) Equipment that must be painted per regulation or policy established by other services or Government agencies.

(d) Rotary and fixed wing aircraft. However, ground support equipment must have CPP applied per this regulation.

(e) Components of systems or items that can be transported in various modes and can be constructed or assembled into a variety of configurations.

(f) Stackable containers except missile containers that are a component of a weapon system.

d. Policies for marking materiel.

(1) Equipment will not be decorated with individual characteristic designs such as caricatures or cartoons.

(2) The style, size, and exact location of markings for all Army materiel will be specified in applicable TB 43– and 746–series and other DA technical publications, to include technical data packages.

(3) Special markings for nontactical vehicles are included in AR 58–1.

(4) Technical data, where appropriate, will be contained on metal or plastic plates or decals.

(5) The red cross insignia for Army Medical Department equipment will consist of a red cross composed of four square–shaped arms bordering on a center square of the same size and superimposed on a square white field slightly larger than the cross.

(6) Under tactical conditions, when requirements for concealment outweigh those for recognition, all conspicuous markings may be obscured or removed by the authority and at the discretion of the major organization commander present. Protective red cross markings may be obscured only at the direction of the responsible major tactical commander.

(7) Overseas commanders may deviate from this regulation when host countries require special markings per international agreements.

(8) Before Army materiel is sold or permanently transferred from the jurisdiction of DA, all Army identification markings will be removed or permanently obliterated by sanding or chipping.

(9) Missile Command equipment will be marked according to MIL–STD 1473.

(10) Markings on the exterior of tactical equipment will be applied or oversprayed with materials resistant to chemical agents.

(11) Safety marking, including hazard warning and caution information, for nontactical equipment, tactical equipment not subject to the Army camouflage policy, and equipment at fixed facilities will comply with the provisions of AR 385–30. Materiel painted in camouflage requiring hazard warning and caution information will have this information applied in a contrasting color.

e. All requests for waiver to the above policies will be forwarded to HQDA (DALO–SMM) per paragraph 1–4.

f. Commanders at all levels will make adherence to the policiess on CARC a matter of command interest during all visits, inspections and evaluations.

4–42. Quality deficiency reports and equipment improvement recommendations

a. All Army materiel is subject to QDR and EIR. The purpose of submitting a QDR is to report conditions that are the result of below–standard quality workmanship, and to file claims for initial failure credit from the DBOF–SMA for depot level reparables (DLR). The purpose of an EIR is to suggest materiel improvements in design, operations, or manufacture. Reporting instructions for QDRs and EIRs are contained in DA Pam 738–750 and DA Pam 738–751.

b. The unit or activity that identifies the need for a QDR or EIR is responsible for its submission.

c. When a QDR or EIR results in configuration changes to fielded materiel, the guidance in the IOI for Army MCM, 6 Sep 90, will be followed.

d. Submission of QDR/EIR has been added to the evaluation criteria for the Chief of Staff, Army Award for Maintenance Excellence.

4–43. Administrative storage of materiel

Administrative storage is the placement of organic materiel in a limited care and preservation status for short periods of time. This applies to MTOE and TDA units. Policy for installation of TDA equipment is located in AR 71–13, chapter 4.

a. Administrative storage will be considered when—

(1) An activity lacks operating funds, people and other resources, or when normal usage of its equipment is not adequate to sustain materiel readiness.

(2) Lack of maintenance resources causes an owning organization to be incapable of performing the required unit maintenance of its equipment.

(3) In addition to (1) and (2) above, equipment that exceeds the capability of the owning organization to operate or maintain must be retained by that organization for contingency or other valid reasons.

(4) Completion of current mission does not require use of authorized equipment on a routine basis.

(5) Training requirements of units or individuals do not require the use of all MTOE equipment.

b. Before a decision is made to use administrative storage, the commander will consider all workable options for maintaining equipment readiness.

c. Nontactical wheeled vehicles are not authorized to be placed in administrative storage.

d. Installation commanders may authorize the administrative storage of their materiel within guidance furnished by this regulation. To the maximum extent practical, administrative storage of materiel will be controlled and supervised at battalion level or above.

e. MACOM commanders responsible for administrative storage—

(1) Furnish assistance to commanders as required in carrying out an administrative storage program.

(2) Monitor the status of material in administrative storage in their commands.

(3) Conduct a command level review of administrative storage at 6–month intervals to reassess and revalidate the requirement.

(4) Forward results of these reviews, with appropriate recommendations, to HQDA (DALO–SMM) when the circumstances are beyond the capability of the MACOM commander to resolve.

f. When more than 25 percent of an organization's onhand equipment must be placed in administrative storage, the MACOM commander will consider initiating action to reorganize the activity at a level of equipment authorization that can be operated and maintained.

g. Administrative storage of aircraft will be considered in the same category as short–term storage and accomplished per the applicable AVUM or AVIM technical manual. In no case will aircraft remain continuously in administrative (short–term) storage for more than 45 days. At the expiration of that time, aircraft will be restored to an FMC status, or placed in intermediate storage up to, but not exceeding 180 days.

h. Equipment in administrative storage will have all major subsystems exercised as directed by applicable TMs. Any faults detected will be corrected. The materiel will then be completely reprocessed if it is to be returned to administrative storage.

i. Before equipment is placed in administrative storage, it must meet the maintenance standard outined in paragraph 3–1 *a* .

j. All regularly scheduled preventive maintenance services are suspended while materiel is in administrative storage.

k. Special scheduled services, inspections, maintenance standards and procedures, or other readiness evaluations prescribed in applicable material operators' manuals will be followed. For aircraft, the applicable unit maintenance technical manual and TM 55–1500–204–25/1 will be used. Performance of the services is the responsibility of the unit storing the materiel. Faults noted during these required services, inspections, and evaluations are corrected as quickly as practicable.

l. Equipment will be rotated per a rotational plan that will keep it exercised and reduce maintenance effort.

m. Equipment will be stored to provide maximum protection from the elements, to provide access for inspection, maintenance, and exercising, and to provide physical separation from active equipment.

n. Equipment in administrative storage is accounted for per AR 710–2. Asset reports are submitted under AR 710–3 and materiel condition status reports under AR 220–1 and AR 700–138.

o. Materiel removed from administrative storage will—

(1) Be restored to normal operating condition.

(2) Have all MWOs applied.

(3) Be returned to a normal PMCS schedule using the last type service completed.

(4) Calibrated as required.

p. The access to materiel in administrative storage will be strictly controlled to prevent cannibalization or pilferage.

4–44. Depot repair and return programs

a. The objective of all repair and return programs is to extend the service life of the equipment and improve unit materiel readiness. This is done by sending equipment from the DS and GS levels to the depot level for repair and return to the DS and GS levels without supply action.

b. Policies applicable to the depot repair and return program are as follows:

(1) Intra–Army depot level repair and return programs are negotiated between the MACOM/major subordinate command requiring support and the supporting MACOM/major subordinate command.

(2) Interservice support agreements and commercial contracts for repair and return programs will be developed and established under guidelines in sections IV and V of this chapter, and other pertinent Army and DOD directives and policies.

(3) All depot repair and return programs are formalized by a memorandum of agreement (MOA) or memorandum of understanding (MOU), with a performance work statement or scope of work attached. These documents define precisely the quantity of items, the unit or program costs, projected time frames, level of repair, and property accountability procedures. All MOA or MOU will include a requirement for project code "RDP" (romeo–delta–papa) to be used to identify items as MACOM assets during the shipment, repair, and return process.

(4) In–process reviews of all established depot repair and return

programs will be held at least semiannually. As a minimum, all signatories of the agreement will attend.

(5) Unless prevented by the operational situation or agreed upon in writing, all unit maintenance will be completed before materiel is evacuated for repair and return. The materiel will be shipped to and returned from the performing activity without BII.

(6) Combat and tactical vehicles retrograded to depot maintenance facilities for completion of DS and GS levels of maintenance will normally be repaired on a return–to–user and reimbursable basis. Such support may be authorized by the appropriate materiel proponent and MACOM when—

(a) The workload at the DS and GS maintenance levels prevents the timely and economic repair of the equipment, and a replacement or acceptable substitute is not available from command assets, while the workload at the depot maintenance facility will permit such repair.

(b) Such action will facilitate the timely and economic installation of a modification or other product improvement.

(7) Aircraft that require unprogrammed depot maintenance will be reported to the NMP/NICP for scheduling into a depot facility. These aircraft will be processed on a nonreimbursable basis. Commands or activities requiring maintenance support that exceeds the capacity of available AVIM activities will request such assistance through the appropriate AVIM activity to the NMP/NICP. This work will be processed on a reimbursable basis.

(8) The memorandum of agreement for a depot repair and return program will outline procedures to accomplish asset tracking per AR 710–3.

c. Depot repair and return program responsibilities are as follows:

(1) CG, AMC will—

(a) Provide guidance to Depot Systems Command and major subordinate commands on implementation of the depot level repair and return program.

(b) Negotiate and sign formal implementation documents for all reimbursable work order programs.

(c) Provide funds for AMC–sponsored program request and order number repair and return programs.

(d) Ensure repair parts are available to support the repair and return programs.

(e) Immediately notify the supported MACOMs of any changes to the memorandum of agreement and participate in all formal IPRs.

(2) Supported MACOMs will—

(a) Determine requirement for and scope of depot level repair and return programs.

(b) Negotiate and sign all formal implementation documents for repair and return programs.

(c) Program funds in annual command operating budgets for reimbursable work order repair programs. Budgets will include funds for second destination costs.

(d) Select and provide reparable equipment to repair activities as scheduled.

(e) Provide any changes as they occur to the MACOM performing the work and participate in all formal IPRs.

4–45. Maintenance of pneumatic tires

a. General policies.

(1) Command emphasis is required at all levels to obtain maximum safety and savings benefits from the proper use of retread tires.

(2) Surveillance procedures will be established to ensure that all reparable vehicle and aircraft tires are recovered prior to the end of their useful life.

(3) Reparable tires will be retreaded, not discarded or processed through Defense Reutilization and Marketing Office (DRMO) unless classified not reparable/not economically reparable.

(4) Except for restrictions listed below, or approved as waivers by HQDA (DALO–SM), using activities will use retread tires.

(a) Two–ply tires, without breaker strips or belts will not be retreaded.

(b) Buses will not be operated with retread tires on the front wheels.

(c) M520 truck series and M747 semitrailers will not be operated with retread tires.

(d) M911, M916, M920, M915, and M915A1, heavy hauler, truck tractor vehicles will not be operated with retread tires on steering axles.

(e) Applicable state and federal transportation codes will be met when a vehicle is operated off the installation.

(5) Regrooving of tires is not permitted because it is not structurally viable or cost–effective.

b. Responsibilities specific to the Army's tire retread program.

(1) The DCSLOG's responsibilities are in paragraph 2–2 *k* .

(2) CG, AMC's responsibilities are in paragraph 2–14 *s* . This program will include a system of inspecting and periodically evaluating all organic or contract aircraft and vehicle tire retread activities utilized by the Army.

(3) Major Army commanders, The Surgeon General, and Chief of Engineers will obtain the most cost–efficient use of the retread tire program and maximize safety during pneumatic tire use by—

(a) Maximizing use of training courses dealing with pneumatic tires.

(b) Ensuring thorough inspection of pneumatic tires mounted on vehicles and aircraft during PMCS and removal when tread depths reach the dimension for retreading.

(c) Ensuring that all maintenance personnel are complying with the requirements of TM 9–2610–200–24, TM 9–2610–201–14, and TM 55–2620–200–24.

(d) Developing accurate workload requirement forecasts.

(e) Reporting excess serviceable (new and retread) and economically reparable tires to the NICP for disposition per AR 725–50, chapter 7.

(f) Ensuring that qualified personnel are available to inspect and classify tires prior to shipment for retreading or to DRMO and to perform acceptance inspection on receipt of retread tires from the retreader.

(g) Developing aircraft tire usage and performance data upon request from the Department of Defense.

c. Quality of retread tires.

(1) Retreading can be performed several times as long as the casing is removed from the vehicle before damage occurs.

(2) Installations and stock record account activities will ensure that all retreaded tires are inspected for quality of workmanship upon receipt. Upon discovery of deficiency in workmanship or quality, inspectors will immediately initiate a QDR/EIR to TACOM or ATCOM.

(3) When required, these commands will provide technical assistance to unit, DS, and GS maintenance personnel.

d. Training.

(1) All commanders will ensure that training will be provided to all individuals who service single–piece or multi–piece rims and wheels used on large vehicles. These individuals will demonstrate proficiency in their ability to perform specific tire, rim, and wheel tasks. Individual ability to perform these tasks will be evaluated and a record maintained documenting this evaluation.

(2) CONUS training courses pertaining to pneumatic tire inspection, classification, and rebuild standards are conducted at Tooele Army Depot. Training requirements may be coordinated with the Commander, Tooele Army Depot, ATTN: SDSTE–MAE–D, Tooele, UT 84074.

(3) European training classes in pneumatic tire inspection, classification care, and maintenance are conducted by the U.S. Army Depot Activity, Ober Ramstadt at the unit location. Training may be coordinated with the Commander, U.S. Army Depot Activity, ATTN: SDSMZ–OR–T (Ober Ramstadt), APO AE 09175.

e. Warranties. Tires repaired or retreaded by General Services Administration (GSA) contractor or local commercial sources are guaranteed against defects in material or workmanship for the tread life of the tire. Defective tires will be returned to the contractor for repair or adjustment and reported per DA Pam 738–750 and DA Pam 738–751. Defective tires rebuilt by Government facilities will

be retained as exhibits and reported for disposition, per DA Pam 738–750 and DA Pam 738–751.

4–46. Component safety program (CSP)

a. The objectives of the CSP are to—

(1) Provide maximum assurance that all Army materiel meets established safety related requirements.

(2) Identify and control critical safety items throughout the materiel life cycle.

(3) Establish, evaluate, and substantiate structural integrity.

(4) Verify rates of deterioration, detect degradation, identify unsafe conditions, and assess serviceability.

(5) Identify items for timely maintenance or disposal.

(6) Restrict use of items with marginal reliability or safe performance level.

(7) Initiate improvements based on available quality, surveillance, test, and performance data.

b. Component safety program responsibilities are as follows:

(1) The DCSLOG will—

(a) Serve as the principal staff element for planning, developing, and disseminating CSP policy.

(b) Program and fund all equipment and materiel requirements and services necessary to conduct the CSP.

(2) The CG, AMC will—

(a) Manage the system of CSP publications.

(b) Implement the CSP on those items for which AMC is accountable.

(c) Coordinate as required with other MACOMs in conducting the service life surveillance portion of the CSP.

(d) Provide the DCSLOG, through established channels, the AMC budgeting, programming, and funding needs.

(3) MACOM commanders will—

(a) Include planning and support of the CSP as an integral part of their mission requirements.

(b) Provide support within their mission and capability as requested by the CG, AMC. This support includes providing inspections/test facilities and sample quantities of items for surveillance as necessary.

c. Critical safety items must be identified and controlled throughout a product's life cycle. Considerable attention must be given to ensuring that these items conform to design requirements during manufacturing and reconditioning. In addition, items in transport, storage, or use must be assessed for retention of the critical safety characteristics. This provides a proactive approach to eliminating unsafe conditions. Implementation of the CSP should, where applicable, build on existing requirements such as MIL–STD–1629, MIL–STD–785, and MIL–STD–882.

d. The CSP encompasses four distinct activities: the identification and control of critical safety items; service life surveillance; performance feedback and analysis, and corrective actions/improvements. Ensuring of structural integrity (minimized risk of structural failure) must be a consideration during all phases of the CSP to facilitate diagnosis of possible structural failures, prediction of operational life expectancies, and improvement of design. Attention must be given to design conditions, materials and processing controls, design and analysis control, quality assurance controls, and in–service controls during the earliest design stages.

e. Activities responsible for the acquisition of Army materiel must establish a management program for the control of critical safety items. The program encompasses the following elements:

(1) Life cycle identification of critical safety items and characteristics beginning during design or development and continuing through production to post production processing and phaseout.

(2) Validation of critical design characteristics prior to production to ensure all critical aspects of the design are accurately documented and parts or materials operate as intended. Timely identification, scheduling, and application of test and analysis techniques are essential for validating the design and substantiating structural integrity.

(3) Establishment of intensive manufacturing and quality controls for critical safety items by producers and contractors.

(4) Establishment of intensive processing and quality controls by depots and activities performing maintenance, repair, rework, or overhaul on critical safety items.

4–47. Tool Improvement Program Suggestions (TIPS)

a. The TIPS program is a means for the users of tools to report deficiencies in tools; recommend tools for deletion from, or addition to, sets, kits, and outfits; and suggest modifications to tools which will improve the usefulness of the tools.

b. ODCSLOG (DALO–SM) is the proponent for TIPS and will—

(1) Approve Army policy for TIPS.

(2) Resolve conflicts between Army Agencies.

(3) Review and approve TIPS documentation developed by U.S. Army Force Integration Support Agency (USAFISA).

c. Commander, USAFISA is the executive agent for TIPS and will—

(1) Propose Army policy for TIPS.

(2) Establishe procedures for functional and operational control of the TIPS as follows:

(a) Receive, analyze, evaluate, coordinate, and staff suggestions and recommendations.

(b) Approve or disapprove TIPS initiatives and provide feedback to submitters and evaluators.

(c) Ensure that approved initiatives are implemented.

(d) Maintain files and statistics for TIPS.

(3) Publicize the program to ensure Army–wide awareness of TIPS and improvements/changes to tools, sets, kits, and outfits.

d. When a suggester (military or civilian) experiences difficulty with a tool that impacts the unit mission, he or she is responsible for notifying the Army's executive agent for tools. This notification may be submitted in any reasonable format, and by any means of documentaition available, including datafax and/or electrical message. The initiative must be clearly stated, explain the problem and provide a proposed resolution. (DA Pam 738–750 will contain definitive guidance on TIPS inititiatives.) Initiatives must be addressed to: USA Force Intergration Support Agency, ATTN: MOFI–TED–E, Fort Belvoir, VA 22060–5587. Information or assistance may be received telephonically by calling DSN 345–2512 (CML 703–355–2512). The datafax number is 345–3252 or 703–355–3252.

e. Evaluators are subject matter/technical experts at TRADOC schools or AMC/TRADOC major subordinate commands. The evaluator, when tasked, will conduct a complete evaluation of the initiative, to include cost/time savings or avoidance and return comments and recommendations to USAFISA within established timeframes.

f. If the evaluator determines that a prototype tool is required for testing, he or she will notify USAFISA. USAFISA will provide mailing instructions and a TIPS control number to the suggester. The suggester should provide a prototype tool only upon request. The suggester or his or her unit, upon the commander's approval, must bear the cost of providing required prototype tools.

Table 4–1
ORF annual demand data sample format
Operational Readiness Float Jan 1 thru 31 Dec 19

Installation or Unit	LIN	Noun	Tot. Dmd.	MACOM Avg. Down–time Days	ORF Auth (TAEDP)	Qty o/h	MSC Code	Rmk
W45XU1	T61494	TRK, Utl	2	5	1	1		
W45CU1	T61494	TRK, Utl	4	10	2	1		
MACOM TOTAL			6	8.03	3	2		

Notes:

1. Primary sort should be by MSC code.
2. Enter installation or unit name and UIC of the unit actually holding the ORF assets.
3. Enter the LIN in alphabetical order.
4. Tot. Dmd. is total demands for an item including those that were issued and those that would have been issued if an asset had been available.
5. Avg. Downtime Days is the average of the total downtime in days of all items for which an ORF demand was recorded.
6. ORF Auth. TAEDP is the total MACOM authorization for an item as shown in the TAEDP.
7. Remarks will be used by the MACOMs to provide additional information or highlight specific problems not reflected by the data.
8. Consecutively numbered notes referred to in 'Remarks' and entered at the end of the report are acceptable.
9. MACOMs will submit a roll up of subordinate ORF accounts. Each LIN will be summarized at the MACOM level (to include the average down time computed at the MACOM level).
10. Average down time at MACOM level is computed by adding the average down time in days times the total demands, for each unit, and then dividing by the total MACOM demands.

Chapter 5
Commodity–Oriented Maintenance Policies

Section I
Maintenance of combat vehicles

5–1. Overseas commands not having depot maintenance capability

Overseas commands not having depot maintenance capability will report combat vehicles requiring depot maintenance support to, and receive disposition instructions from, the appropriate materiel proponent under AR 750–2.

5–2. Utilization programming

Operational usage standards for combat vehicles will established by each MACOM. These standards will be stated in terms of average miles/rounds per vehicle and total allowable unit and fleet mileage per unit of time. The objective of these standards is to ensure the development of a command usage pattern for combat vehicles that will result in these items reaching replacement at a rate consistent with in–country and/or DA ability to replace them. The ARNG and USAR must perform periodic rotation of high usage combat vehicles at MATES and ECSs with low usage combat vehicles to ensure equal utilization.

5–3. Selection of equipment for overhaul

a. Combat vehicles reaching a mileage interval prescribed by AMC will be inspected by wholesale level teams that apply a scoring procedure developed by AMC to select those vehicles in need of an overhaul. Only these vehicles will be directed for return to an AMC depot. A copy of the evaluation will accompany the vehicle when it is sent to an overhaul facility.

b. Combat vehicles not yet reaching the prescribed mileage threshold but considered to be overhaul candidates by the user MACOM, may be nominated by the MACOM for evaluation by the teams.

c. Combat vehicles requiring extensive modernization in a depot facility may be inducted without benefit of the combat vehicle evaluation. These vehicles are repaired as necessary during the modernization.

d. Approved repair candidates will be scheduled and retrograded into depot maintenance shops per the annual combat vehicle evaluation program.

e. Combat vehicles eligible for depot overhaul by this regulation will be—

(1) Replaced with new, or low mileage vehicles when such assets are available.

(2) Repaired at depot maintenance shops and returned to user when replacement assets are not available.

f. When a replacement item is not available and the depot cannot repair and return it to user, MACOMs will repair the items to GS standards. Units will continue using the item at a low priority, low usage rate until a replacement is available.

g. The ARNG major item maintenance requirement program for surface equipment will be developed as a part of TAMMS data submitted by the States. All depot maintenance for end items (except aircraft) will be on an exchange or repair–and–return basis. The aircraft depot repair program will be scheduled on an exchange basis. All surface depot programs for major end items will be controlled and funded at the NGB level. States will coordinate directly with supporting area TMDE support teams (ATSTs) for calibration services and calibration repairs provided to the State under NGB–funded programs. Surface equipment that requires unscheduled or urgent depot repair will be reported to NGB–ARL–M for consideration on a case–by–case basis, and aircraft in that condition will be reported to NGB–AVN. Army surface equipment will be selected for depot repair under the following criteria:

(1) All major end items, type classified standard, that meet condition requirements as determined by the commodity command concerned.

(2) All major end items, type classified standard, in an unserviceable condition beyond the capability of GS maintenance.

(3) Major end items that have a record of frequent maintenance failure requiring extensive repairs and for which the recurring failures, if repaired at a depot facility, would be cost–effective.

(4) Combat vehicles will be selected for depot repair on a condition basis (not on mileage) when technical inspection by GS maintenance indicates that depot repair is in the best interest of economy and readiness.

(5) Towed and self–propelled artillery weapons, mortars, and recoiless rifles will be selected for depot repair per TB 750–231.

(6) Tube launched, optically tracked, wire guided (TOW) missile system components requiring repairs or services that are beyond the